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NEWS SUMMARY

GENERAL BUSINESS

Crucial Belgium meeting to back Leyland plant

The future shape and size of the British motor industry could be decided at a crucial meeting of British Leyland shareholders tomorrow, according to Mr. Pat Lowry, permanent director of Leyland.

In a radio interview, he left no doubts of the importance the company attaches to the meeting—called to vote on Leyland's plan for centralised bargaining in the Cars Group. Mr. Lowry hinted that if the proposal was not accepted another crisis could be precipitated within the group leading to severe cuts in Government aid and serious threats to jobs.

Belgium pressure in U.S. grows

BY DAVID BELL, Washington, Oct. 16

Protectionist pressures in the U.S. continue to intensify. Zenith Corporation, which claims that Japanese television manufacturers are unfairly subsidised by their Government, has formally appealed to the Supreme Court for redress.

The appeal by Zenith, one of America's largest television manufacturers, in a case which has implications well beyond the television industry, coincides with a major campaign by the U.S. steel industry against Japanese and European steel imports.

President Carter talked this weekend of "illegal" sales of foreign steel "below the cost of production and transport" having been made in the U.S. for "a number of years."

He added: "We are determined to stamp it out."

Guerrillas killed

Twenty-nine guerrillas and 13 Rhodians have been killed during the past 48 hours in clashes with Rhodesian security forces. An official communiqué stated that the guerrillas murdered six Africans and that Rhodesian troops killed the guerrillas and five black civilians living with and assisting a terrorist group.

U.K. chemical industry link with suppliers

CHEMICAL industry and its equipment suppliers in the U.K. are to keep each other better informed of their plans and ensure that local suppliers continue to be able to meet the great bulk of the chemical industry's needs.

Czech trial

Four prominent Czechoslovak dissidents go on trial today in the highest political court against Czech human rights activists since the publication of Charter 77. Mr. Vaclav Havel, the playwright, and three other prominent intellectuals have been accused of anti-State activities.

Hypocrisy charge

Mr. Dennis Canavan, Labour MP for West Strathgairne, has urged the Government to strengthen the Race Relations Act and ban National Front marches. In an attack on the NF, he told the Scottish Council for Liberation that it was hypocritical to condemn racism in Rhodesia or fascists in Chile while turning a blind eye to those problems in the U.K.

Gandhi on attack

Mrs. Indira Gandhi, the former Indian Prime Minister, has accused the leaders of the Congress Party of making a deal with the ruling Janata Party, after falling in her attempt to win the leadership of the Opposition.

Kidnap arrests

A man and a woman have been arrested at Zolingen, Switzerland, to connect with the kidnap of Grazziella Ortiz, the five-year-old girl who was released unharmed on Friday after being held for 11 days. Her father paid a \$2m ransom. Police have not identified the arrested couple, but said that they were foreigners.

Bodies found

The bodies of two women have been found within three miles of each other near Edinburgh. Police think the killings could be linked. Another woman's body has been found near a canal in Falkirk, but police said there was no connection between this and the other two.

Erniey...

Twenty-four families have returned to their homes in Seveso, Northern Italy, after being forced to evacuate them last year when the area was contaminated with toxic dioxin.

Ethiopia has denied claims by the Ethiopian Revolution Information Centre that about 350 anti-Government activists had been killed in the past two weeks.

Sir Edmund Hillary, who was taken ill while leading an expedition in Northern India, is improving at a military hospital.

Reg Prentice, the former Labour MP, is expected to apply to be a candidate for the safe Conservative seat of Wycombe at the next General Election.

Development work at a Bristol hospital has cut the cost of installing a kidney machine in a private home from about £1,500 to £700.

FEATURES

Towards devolution in Ulster	27	FT SURVEY	33-36
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Protectionist Hijack jet at Aden

BY OUR FOREIGN STAFF

THE HIJACKED Boeing 737 in which terrorists are holding 87 people hostage, flew on from Dubai and landed last night at Aden airport, despite efforts by the South Yemen authorities to stop its arrival.

The South Yemen Government, however, promptly said that the aircraft would not be allowed to stay in Aden, and that they would refund it so that it could leave.

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Investigation

Last Thursday the Carter Administration promised to move "aggressively" to deal with dumping. It is investigating a case involving some \$20m-worth of Japanese steel imports. U.S. Steel is shortly to bring a dumping complaint against all the major EEC steel-producers, including the British Steel Corporation.

Major U.S. industries are determined to use whatever avenues are open to stem what they consider a tide of imports threatening to overwhelm them.

Thus, while the steel industry is concentrating on dumping, Zenith is pressing on with its case, which alleges that its Japanese competitors have a 15 to 20 per cent advantage because of the Tokyo Government's relaxed importation tax on sets for export.

Shrill note from airliner

Stewart Dalby writes from Salalah in Oman: I was caught up in the Boeing hijack drama yesterday while aboard an Oman air force light Defender aircraft on a routine Government sponsored trip. The Defender was suddenly ordered to act as an airborne radio bridge and pass on the hijackers' messages to the Oman authorities.

Over the radio, in broken and sometimes barely audible spasm, we heard: "We are heading for Aden. Did you get our message, air control? Then after a pause: "This is Commander Mahmud, the leader of the Red Army of Palestine Imperialist Organisation."

There was then a long delay before, in a voice of rising

£1bn. reflation next month 'would clash' with IMF credit terms

BY PETER RIDDELL, ECONOMICS CORRESPONDENT

A REFLATIONARY package of about £1bn. next month would raise the borrowing requirement to 1978-79 above the limits agreed with the International Monetary Fund, according to a new analysis from the London Business School's Centre for Economic Forecasting.

The centre, one of the leading forecasting organisations in the U.K., also expects a significant slowdown in the rate of growth of world industrial production next year, with a further rise in unemployment during the next two years.

Equity Bank plan to aid small companies

EQUITY CAPITAL for industry. The City's equity bank, is considering developing its backing for industry by putting up cash—on more favourable terms than normally available—against packages of shares by medium and smaller companies. It believes it could invest a total of about £10m. a year in 10-15 concerns in this way.

Linwood fears

The main anxiety over the light car programme rests at Linwood, Chrysler's Scottish plant just outside Glasgow, where the vehicle was due to be introduced.

Since the Government-backed rescue 20 months ago, the Linwood work force has expanded substantially, and the plant has brought on stream the new batch back Sunbeam model, due to be launched today.

Co-operate with ACAS, Booth warns employers

BY NICK GARNETT, LABOUR STAFF

MR. ALBERT BOOTH, Employment Secretary, warned yesterday that other companies that followed Grunwick in its attitude towards trade union recognition, greater legal powers may be sought for the Advisory, Conciliation and Arbitration Service.

In an interview on ITV's weekend "World," Mr. Booth said employers would be ill-advised to follow the Grunwick path of not co-operating with ACAS on supplying information about its staff.

He did not believe that Grunwick's attitude would become typical for small and medium companies. But if it did, extra legal powers for ACAS might have to be sought. The inference was that this would probably be in the area of information-gathering on which ACAS recommendations were based.

Unions demand facts on Chrysler light car plan

BY OUR INDUSTRIAL STAFF

CHRYSLER trade unions are demanding clarification of reports within the company that it has halted development work on its light car, due to be introduced in 1979.

Because of uncertainty about the car, the unions have called for an indefinite adjournment of the Chrysler planning agreement, the only agreement signed so far.

They have asked the company for a satisfactory reply before resuming planning agreement talks, and refused a suggestion that discussions continue on the assumption that the car would be put back by six months.

U.K. officials will fly to Washington to-day to take part in an international review of nuclear energy technology and institutions.

U.K. OFFICIALS will fly to Washington to-day to take part in an international review of nuclear energy technology and institutions.

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Financial Times Monday October 17 1977

The Sleeping Beauty

by CLEMENT CRISP

The question of authenticity in the Royal Ballet's classic Sleeping Beauty...



Lesley Collier and Anthony Dowell

structural development (so vital in Petipa) are most happy. But there are textual problems...

More serious is the decision to retain Ashton's 'Awakening' pas de deux...

hero and heroine are left so to speak, hanging in mid-emotional air...

uncompromising flight of steps left undisturbed to permit entrances. The awakening set is the most effective...

The Entertainment Guide is on Page 12

Kurt Sanderling

by MAX LOPPERT

From East Berlin Kurt Sanderling had brought with him a remade by the leading composer Siegfried Matthus...

string section (ten first violins down), and a feeling of monumentality and ruggedness to the ensemble...

Other alterations seem to me to be beneficial. There is an attractive new version of the Prologue...

In the matter of dancing though, the staging is a triumph for the whole company...

Gaumont, Southampton

Don Giovanni by MAX LOPPERT

I missed the Peter Hall production of Don Giovanni at Gaumont this year...

operas to 'solve' is moved and paced with a formidable logic and a relentless directness...

notice, adjectives must serve towards description of a portrayal whose combinations of contradictory qualities normally require several paragraphs...

Covent Garden

Victoria de los Angeles by ELIZABETH FORBES

The recital given at Covent Garden last night by Victoria de los Angeles followed the pattern of many similar occasions...

Gautier were exquisitely realised on a miniature scale. Thus, ushered in by an Aztec Prayer by Salvador Moreno...

Elizabeth Hall

William Byrd Choir by NICHOLAS KENYON

Byrd's Great Service is one of the glories of English church music, while the Contrones Sacre which he compiled with Tallis is one of the finest collections of Latin church music...

Sunday Jazz Brunch

Jazz artists appearing at the Portman Hotel's Jazz Brunch series on Sundays this month...

More comfortable stylistically with the French than with the German language, Victoria de los Angeles was able to give expressive and convincing accounts of his quartet on October 30...

The lack of interference with the music's sublime progress was perhaps less appropriate in Latin works, where the words of the Elizabeth Hall may not have been so important...

Festival Hall

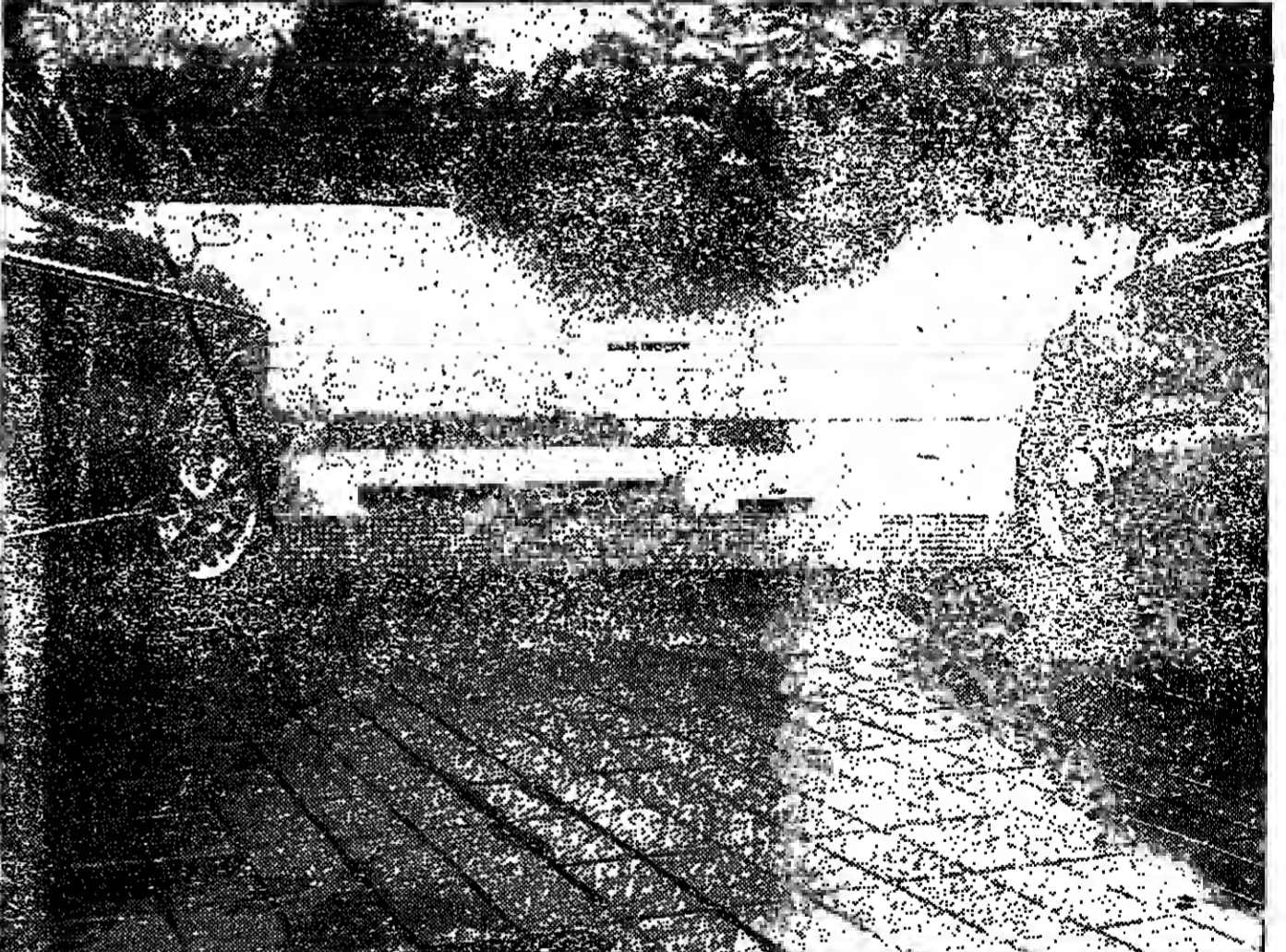
Beethoven's Missa Solemnis by DAVID MURRAY

It is a long time since I heard the Missa Solemnis in a concert with the LSO chorus rising ball and I had half-forgotten how unsettling an experience it can be...

triumphantly in the Gloria, the Missa Solemnis in a concert with the LSO chorus rising ball and I had half-forgotten how unsettling an experience it can be...

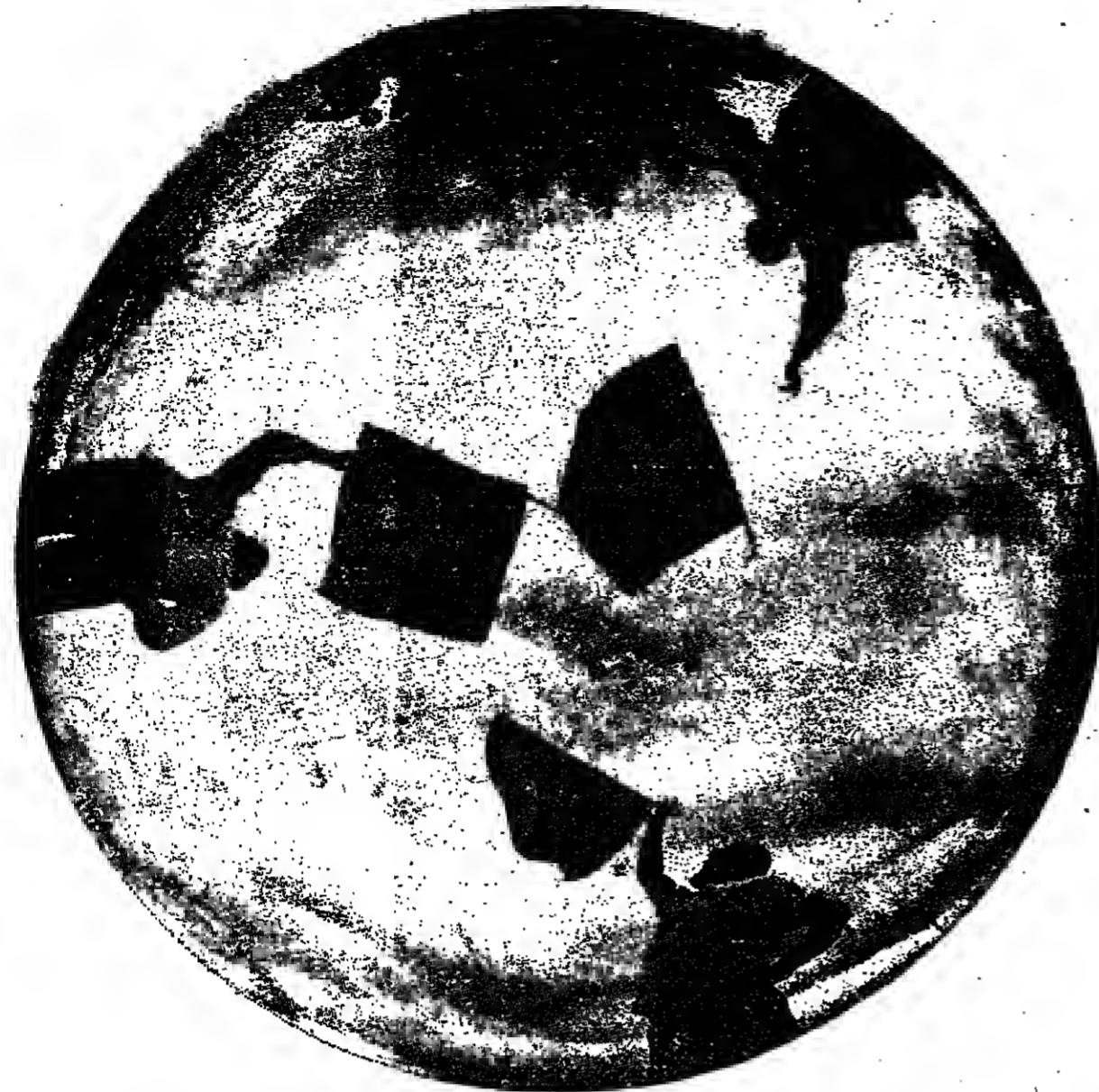
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triumphantly in the Gloria, the Missa Solemnis in a concert with the LSO chorus rising ball and I had half-forgotten how unsettling an experience it can be. If Colin Davis's work as conductor is arguably partial and argued declaration rather than do doubt a deep-focus, wide-angle perspective on the very old and powerfully, with a contrasting wise) he projects it with passionate conviction. On Thursday he carried the London Symphony Orchestra with him wholeheartedly: a turbulent, exciting performance which intermittently disclosed black depths. Davis's nearest approach to serenity came at the outset, with a broadly measured Kyrie. With the entry of the soloists at the Christus eleison it was clear at once that the tenor, Robert Tear, would lead the quartet; a suggestion of raw edge in the voice set off his strongly personal account of his music to great effect. The soprano was the Bulgarian Anna Tomowa-Sintow, operatically intense and yet a little removed from the spirit of the whole; the noble contralto of Patricia Payne told strongly at full voice, but faded in piano. Robert Lloyd's silky bass came into its own later in the Agnus Dei, beautifully sober and unforced. The impact of the performance remained essentially Davis's work. He swept his forces



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OVERSEAS NEWS



Mrs. Gandhi attacks her party's leaders

By K. K. Sharma

NEW DELHI, Oct. 16. HAVING FAILED in her bid to grab the leadership of the opposition Congress Party, Mrs. Indira Gandhi has left the organisation in a state of disarray by accusing its present leaders of negotiating a deal with the ruling Janata Party...

Eanes urges Portuguese parties to reach pact

BY DIANA SMITH

LISBON, Oct. 16.

IN A MAJOR policy statement, President Antonio Ramalho Eanes has called on Portuguese political parties to agree on solutions to the country's political and economic problems...

No sign of Iceland strike end

BY JON MAGNUSSON

REYKJAVIK, Oct. 16.

THE WEEK-OLD civil servants' strike which has paralysed Iceland's economy is likely to continue for at least a further week, since according to a high Government official in an interview...

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Renewed S. Lebanon fighting

BY PAUL LENDVAI

The Lebanese Army prepared units at the weekend to move south despite renewed fighting between rival factions near the border with Israel. Agencies report from Beirut, Palestinian guerrillas attacked they planned to begin implementation of the security plan for the region, which calls for them to make substantial pullbacks in the south.

Trial of four dissidents to open in Czechoslovakia

BY PAUL LENDVAI

VIENNA, Oct. 16.

THE TRIAL of Mr. Vaclav Havel, the world-famous Czech playwright, and three other prominent Czech intellectuals, all accused of "subversive" and "anti-state" activities, begins tomorrow in Prague. All the defendants were originally arrested in mid-January, but Mr. Havel and Mr. Frantisek Pavlicek, a former theatre director, were set free in mid-May, pending trial.

Andreotti could face inquiry

BY PAUL BETTS

ROME, Oct. 16.

SR. GIULIO ANDREOTTI, the Italian Prime Minister, together with former Prime Minister Sr. Mariano Rumor, two other former ministers and the former hierarchy of the Italian secret service, the so-called SID, could be the subject of an embarrassing inquiry by the Milan judicial authorities. This is the latest development in the controversial and protracted trial taking place in the southern town of Catanzaro over the 1980 Milan bomb outrage in which 16 people died.

Dutch coalition move

BY MICHAEL VAN OS

AMSTERDAM, Oct. 16.

THE DUTCH Labour Party has been given until Monday to make up its mind whether to accept what appears to be a final compromise plan to end the deadlock in the six-month-old crisis over the formation of a new Government. On Friday two mediators proposed that the Labour Party be given seven seats in a new Cabinet, the Christian Democratic Party (CDA) be given seven seats and the small left-of-centre Democrats take one seat.

Danish rig fire put out

BY HILARY BARNES

COPENHAGEN, Oct. 16.

THE FIRE caused by a gas blow out on board the Danish research vessel Explorer in the Danish sector of the North Sea on Friday night by fire-fighting vessels. Gas, sand and water continued to pour out of the well but there is no oil, and therefore no pollution problem.

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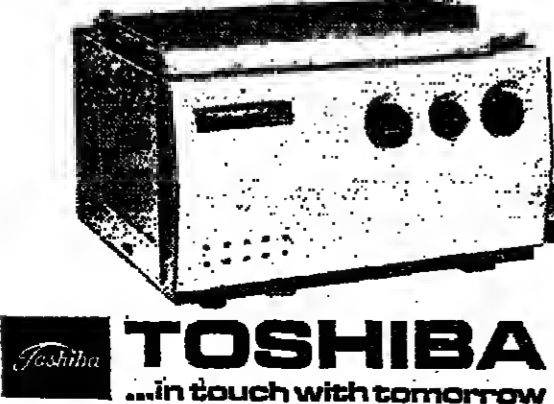
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N-fuel cycle review to open

BY DAVID FISHLOCK, SCIENCE EDITOR

SENIOR BRITISH officials leave for Washington today for the start of the major international review of nuclear energy technology and institutions called for by President Carter at the London summit last May. President Carter called for a multi-national search for ways of stopping the spread of nuclear weapons. The British team, led by Sir Hermann Bondi, former defence adviser, who took up his new post as Chief Scientific Adviser to the Department of Energy only this month, will be one of 40 from nations with an important interest in nuclear energy which have agreed to participate in the International Nuclear Fuel Cycle Evaluation Programme (INFCEP).

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WORLD TRADE NEWS

India plans major change in trade policy as reserves rise

BY K. K. SHARMA

RADICAL changes in India's trade policies and procedures are being planned to take into account the greatly improved foreign exchange reserves position and the decision to liberalise imports and industrial licensing.

An official committee has been formed under the chairmanship of Dr. P. C. Alexander, Commerce Secretary, to suggest the changes to be made.

The Government does not intend to abandon import controls entirely but feels that the administrative structure built up in the past needs to be modified. The committee will recommend ways to dispense with procedures devised to cater to needs of actual users, such as import licences. It will also consider whether it is still necessary to announce periodically import in-

crude oil, cotton and rock phosphates are expected.

India is also to import 20,000 tonnes of aluminium this year in view of the fall in production of the metal and a substantial increase in demand. Total internal production in 1977-78 is expected to be 190,000 tonnes, which is less by 18,000 tonnes than production last year.

The State-owned Minerals and Metals Trading Corporation is to import 5,000 tonnes of aluminium immediately and then will phase additional imports. The imports are in addition to 5,000 tonnes already imported.

The Indian Government is negotiating a consultancy services contract with Geoman, a subsidiary of U.S. Gulf Oil, for development of the Bombay High offshore oilfield. The consultancy contract for the project with the French Compagnie Francaise des Petroles (CFP) negotiated by Mrs. Indira Gandhi's Government at a cost of \$17m., is one of the reasons for the arrest of the former Prime Minister on corruption charges.

The contract was given to CFP even though Geoman offered the substantially lower bid of \$4m. Now the intention is to retain consultancy services by both CFP and Geoman since it is felt that a second opinion for the vital offshore field is desirable.

Greek call for tenders on new plant

By Our Own Correspondent
ATHENS, Oct. 16.

FOREIGN companies will soon be called to submit tenders for the establishment of a \$30m. electronic telecommunications equipment plant in Greece.

The Hellenic Industrial Development Bank (ETBA) and the Telecommunications Organisation of Greece (OTE), both State-controlled, have set up a special organisation to implement the project.

The new company has a share capital of 400 drachmas (\$11m.), with ETBA holding 55 per cent and the OTE the remaining 45 per cent of the shares.

A statement said the seven-member Board of the new company will decide soon on the suitable technology for the plant and will seek offers for the implementation of the project.

Greece already has three plants which manufacture conventional telecommunications equipment. These three plants, owned by Siemens, Philips and ITT, will be covering most of the 750,000 new telephone connections which have been programmed by the OTE for 1977-81.

The three companies are expected to compete to build and provide the know-how for the new plant.

GATT TALKS

A formula for the next decade

BY DAVID EGLI, IN GENEVA

AFTER MARKING time for four years, the talks here under the auspices of the general agreement on tariffs and trade are beginning to move ahead, with the impetus provided largely by the United States.

President Carter's special trade representative Mr. Robert Strauss, first had to convince the European Community to accept a new set of deadlines which, hopefully, may see a conclusion to the protracted Tokyo round by the middle of next year. But with a time frame more or less set, the Carter Administration has found that it has to engage in a wholesale review of objectives and the underlying philosophy of the exercise.

Ironically, the push to conclude the talks comes at a time when the protectionist trend, spurred by unemployment, is stronger than it has been in a generation, making Governments acutely aware not only of the need to reaffirm trade liberalisation as a long-term recipe for prosperity but also of the difficulties that they will encounter in gaining domestic acceptance to a further dismantling of existing tariffs and non-tariff barriers to trade.

The failure to agree this month on a hard and fast tariff-cutting formula is symptomatic of the uneasy situation. With both the Europeans and the Americans bent on protecting various hard-pressed industries, agreement on a formula would have resulted in an immediate concentration on the exceptions to the general rule that each country might get away with. In such an atmosphere, the final package might well have been watered down even more than was the previous Kennedy Round which saw a 50 per cent tariff cut objective whittled to little more than 35 per cent, in overall terms.

With the Europeans apparently resigned to a face-saving mini-package and with everyone seriously worrying about the degree of successes that they could really afford, there has emerged an understanding to leave matters as flexible as possible.

To put this in a positive way, there now appears to be a general consensus, give or take 5 per cent, that the Swiss formula aimed at an average tariff cut of some 41 per cent, should be adopted as a working hypothesis although with no commitments until the final stages of the negotiations.

While the timetable, with its initial offers on industrial tariffs expected by January 15, stays, not be another trade negotiating opportunity for at least a decade, even though the implication that a major push must be made now.

Essentially, the target now lies about halfway between the initial offers of the European Community and the United States. The Community has agreed to higher cuts on the understanding that the implementation of these cuts may be spread over ten years rather than five to avoid too sudden an impact on industry.

In return, the Americans have accepted a greater degree of tariff harmonisation—the cutting of very high U.S. tariffs by significantly more than the lower ones—than was originally intended.

This compromise provides the key to the new approach to the talks which the American negotiator here, Mr. Alonzo McDonald, is now promoting. "We are beginning," he says, "to try to look beyond the next two to three years of relative anxiety and uncertainty to see how we want the decade of the 1980s to be completed. This permits us a longer term focus and may force us into being more aggressive than we would have been otherwise."

Nonetheless, the Europeans will be relieved that the current American view is that there will not be another trade negotiating opportunity for at least a decade, very delicate.

Warning to S. America

BY IAN HARGREAVES, SHIPPING CORRESPONDENT

A WARNING that governments of developed countries are preparing to retaliate against the protectionist shipping policies of South American countries was given yesterday by Mr. James Payne, chairman of the Council of European and Japanese National Shipowners' Association.

Mr. Payne, deputy chairman of the Blue Star Line, told a maritime conference organised by Seatrade magazine in Rio de Janeiro that many shipping policies in Latin America were "judicious."

These policies would, he said, tend to secure the future of the operation between nations.

So far, Europe and Japan had allowed the situation to develop unchecked, but he added: "The mood in Europe and Japan is changing," and "no longer will our Governments stand by and watch the growth of protectionism in international shipping."

Mr. Payne went on to say that unilateral actions must be outlawed and the practices of all shipping industries based on co-operation to secure the future of the operation between nations.

World Economic Indicators

	UNEMPLOYMENT	Sept. 77				Aug. 77			
		Sept. 77	Aug. 77	July 77	Sept. 76	Aug. 77	July 77	June 77	Aug. 76
I.K. (s.a.)	000's	1,466.4	1,413.9	1,393.8	1,319.2	6.1	6.0	5.9	5.6
V. Germany	000's	911.2	963.5	972.6	898.7	4.0	4.3	4.3	3.9
U.S. (s.a.)	000's	6,800.0	6,900.0	6,700.0	7,400.0	7.5	7.9	7.9	7.8
France	000's	1,159.0	1,215.9	1,180.1	941.2	5.3	5.5	5.3	4.3
Belgium	000's	258.6	259.3	246.7	223.1	9.9	9.9	9.5	8.5
Holland	000's	208.7	201.4	186.4	213.2	5.4	5.2	4.5	5.6
Italy	000's	1,672.0	1,432.0	1,459.0	776.0	7.9	6.7	6.8	4.0
Spain	000's	1,000.0	1,010.0	1,030.0	1,030.0	1.8	1.9	1.9	1.9

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BASE RATE

Clydesdale Bank Limited announces that with effect from 17th October 1977 its Base Rate for lending is being reduced from 7% to 6% per annum.

Williams & Glyn's

Interest Rate Changes

Williams & Glyn's Bank announces that with effect from October 17th 1977 its Base Rate for advances is reduced from 7% to 6% per annum.

Interest on deposits at 7 days' notice remains at 3% per annum.

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HOME NEWS

Attorney General to back RTZ in Lords

BY PAUL CHESSERIGHT

MR. SAM SILKIN, the Attorney-General, is due to appear in the House of Lords to-day to make a legal attempt to beat off U.S. efforts to extend anti-trust jurisdiction outside its national boundaries.

He is supporting an appeal action brought by seven directors of the Rio Tinto-Zinc Corporation. If their action succeeds the directors will not be obliged to give evidence in a U.S. court bearing a \$2.5bn. case brought by power utilities against Westinghouse Electric for failing to deliver contracted supplies of uranium.

Mr. Silklin's appearance is the result of at least in part of diplomatic pressures brought by Australia, Canada, France and South Africa. In common with those countries the British Government is sensitive about U.S. investigations into an alleged uranium cartel which is said to have influenced international prices up to 1974.

The Government's first public involvement in RTZ's attempt to avoid U.S. jurisdiction came in the British courts last July. It followed the U.S. grant of an immunity order covering the RTZ executives, which meant they could not plead the Fifth Amendment. This permits refusal to give evidence which might be self-incriminating.

Westinghouse is at the centre of a series of interlocking court actions which revolve around the movement of the uranium price from around \$6 a pound in the 1960s to about \$41 a pound at present. RTZ is a major international uranium producer.

In September, 1975, Westinghouse said that it could not honour supply contracts signed in earlier years at fixed prices because of "commercial impracticability." About 65m. lbs of uranium was involved. Prices had been forced up, it claimed, by an international uranium cartel.

The utilities affected sued Westinghouse for damages. Some of them have settled out of court, but the suits of 16 of them have been consolidated and are now being heard in Richmond, Virginia.

It is this case which has taken RTZ to the Lords in an attempt to avoid giving evidence. Westinghouse wants the RTZ to give evidence because it is trying to prove a link between its refusal to honour the supply contracts and the existence of an alleged cartel.

The RTZ directors are headed by the group's chairman, Sir Mark Turner. For the last year they have fought through the courts against the grant of "letters rogatory," the legal mechanism which provides for the giving of evidence in civil proceedings in a foreign court.

They have been successful only in the extent that they do not have to provide documents, but their obligation to provide oral evidence to the Richmond court will remain if the Lords appeal is unsuccessful.

Within the U.S., one RTZ company has already been under pressure. In July, a Salt Lake City court held that Rio Algom Corporation was in contempt for failing to provide evidence for the utilities v. Westinghouse case. But at the end of last week the Court of Appeals in Denver overturned this judgment.

RTZ companies are also listed in a group of 39 uranium producers accused by Westinghouse, in another action yet to be heard, of operating a cartel which forced up prices. Westinghouse claims damages amounting to around \$8.6bn. (£3.17bn.).

The two actions have been accompanied by Grand Jury proceedings in the U.S. They have been started on anti-trust grounds. At the same time, Congress has started investigations into the alleged uranium cartel.

The political ramifications have been spreading. The Canadian and Australian Governments have ordered their nationals not to appear in U.S. courts. The Attorney-General's intervention in the Lords to-day indicates the desire of major uranium producing and consuming countries to keep under wraps all information possible about selling and buying policies.

But the U.S. has been vigorous in pursuing a strong anti-trust line. In August Mr. Griffin Bell, the U.S. Attorney-General, made it clear the U.S. might have to retaliate if foreign governments persisted in refusing to permit their nationals to appear in U.S. courts, bearing the uranium litigation.

In fact, it is not expected that either of the two Westinghouse cases will proceed to final judgment. Judge Robert Merberg of the Richmond court has appointed a lawyer to explore out-of-court settlements.

Scottish Labour MP will quit

MR. JOHN ROBERTSON, 64, MP for Paisley and one of the founders of the Scottish Labour Party, confirmed yesterday that he would retire at the next General Election.

The decision, announced at the annual meeting of the breakaway SLP in Ayr, gives the party virtually no chance of retaining the seat. The other SLP MP, Mr. Jim Sillars, will stand again in South Ayrshire, where he has considerable local support.

Mr. Robertson, elected at Paisley for Labour in 1961, held it at the last election by a majority of 5,590 over the Scottish National Party.

New sign of pick-up in demand expected

BY PETER RIDDELL, ECONOMICS CORRESPONDENT

FRESH EVIDENCE should be provided this week that a slight pick-up in the level of demand in the economy has already started.

Official figures for spending in shops in September, due to be published this afternoon, will be closely watched to see if the recovery in the previous two months has been maintained.

Most forecasters expect that the combination of income-tax rebates and a falling rate of retail price inflation will keep the volume of sales at about, or slightly above, the July/August level, which was about 2 1/2 per cent. higher than the average for the first half of 1977.

Similarly, a small increase in consumer spending from the earlier, very low levels is expected to be shown when third-quarter figures are announced on Thursday.

The slight pick-up in retail sales in July and August has so far been almost the only tentative indicator of the start of a recovery in activity in the real economy.

Apart from the demand for early refuelling, the other main economic concern of the Government at present is the impact of the continuing large inflows of foreign currency on financial policy.

This will be highlighted on Thursday with the publication of money supply figures for the month to mid-September.

These are expected to show a sharp acceleration in the rate of growth of the money supply mainly as a result of overseas inflows.

An indication of official thinking on this and other issues should be provided on Thursday evening when Mr. Denis Healey, Chancellor of the Exchequer, and Mr. Gordon Richardson, Governor of the Bank of England, address the annual Bankers' dinner given by the Lord Mayor in the City.

Other economic news this week includes the publication on Wednesday of the index of average earnings for August.

But it is far too early to obtain any clear guide from these figures of what has been happening to pay after the end of the Phase Two policy.

Figures are due on Thursday for the financial accounts of industrial and commercial companies and the personal sector, and for the net acquisition of financial assets by various sectors of the economy.

World ships laid up total 7%

By David Freud, Industrial Staff

MORE of the world's merchant fleet was laid-up at the end of August than at any time during the preceding year, according to figures released to-day by the General Council of British Shipping.

Laid-up tonnage in the U.K. fleet was also higher at 2.64m. deadweight tonnes compared with 2.45m. in the previous month. The new total, representing 5 per cent. of the fleet, was the largest since last December.

On August 31, 7 per cent. of the world's fleet was out of work, a total of 43.22m. dwt comprising 262 dry cargo ships and 331 tankers.

That represents an increase of 1.73m. dwt over the previous month and is the worst figure since August last year when the total was 43.47m. dwt. The best month was April when idle tonnage fell to 32.53m. dwt.

The British figure is a large improvement near last year's, when laid-up tonnage reached a peak in April of 5.71m. dwt. However, it is a disappointing decline from the levels of spring, when idle tonnage was reduced to a shade under 2m. dwt.

A breakdown of the total shows that tanker tonnage fell to 1.96m. dwt in August from 2.24m. dwt in July, although laid-up dry cargo tonnage rose to 0.67m. dwt from 0.26m. dwt.

Clash over deposits in failed Irish bank

BY GILES MERRITT, IN DUBLIN

A CLAIM that the Provisional IRA may benefit under a Dublin Government decision to refund depositors in the failed Irish Trust Bank has sparked a sharp clash between the Republic's new Finance Minister and his predecessor.

Mr. Richie Ryan, who was Minister of Finance in the coalition Fine Gael-Labour Government until its defeat in mid-June, stated at the week-end that, on the information available to him when in office, he could not believe that some of the depositors were associated with illegal activities.

Mr. Ryan added that he was speaking of "the IRA and their allies." But this was firmly denied by Mr. George Colley, the present Finance Minister, who said that he had no evidence to support Mr. Ryan's suggestion of IRA involvement with a statement that he now has conclusive proof that the original suspicions of these being subversive organisations were unfounded.

Mr. Colley has replied to Mr. Ryan's suggestion of IRA involvement with a statement that he now has conclusive proof that the original suspicions of these being subversive organisations were unfounded.

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Life cash flow growth forecast by brokers

BY OUR ECONOMICS CORRESPONDENT

THE CASH FLOW of life assurance companies and pension funds should grow to almost £20bn. by 1985 from about £8bn. last year according to stockbrokers Wood Mackenzie and Co. in a survey of savings and financial markets.

The brokers argue that while there may be some increase in overseas investment and in direct finance of industry, the

increasing cash flow of institutions should underpin prices in the traditional areas of investment—property, gilt-edged stock and U.K. equities.

The projected rise in cash flow, the amount available for investment after payment of benefits and costs, is based on the assumption of an annual inflation rate of 10 per cent. and a real increase in earnings of 3 per cent. a year.

Institutional "cash flow" is estimated at £8.3bn. in 1977, rising to £9.8bn. by 1980 and £19.8bn. in 1985. This in turn is expected to be reflected in a rise in the financial surplus of the personal sector as a whole to more than £20bn. by 1985.

It is implied that other sectors of the economy will have higher compensating deficits than recently. Wood Mackenzie argues that there may be limits to the rise in the financial deficit both of the public sector because of the high oil revenue and of the overseas sector because of other oil centres like Nigeria, Libya and Algeria.

London-Houston flights to start

BRITISH CALEDONIAN will begin its non-stop service from London to Houston a week today. The airline won the concession to operate the flights in the recent Bermuda talks and is the only one offering such a service.

It expects to carry 69,000 passengers in the first year. Previously passengers had either to fly to Paris to connect with Houston or use one of the U.S. gateway airports.

Caledonian has mounted a heavy sales and advertising campaign in Texas and in addition to the daily passenger service will operate a weekly cargo run which will also take to Prestwick in Scotland, for the unloading of oil equipment, destined for the North Sea.

The airline also has links with other oil centres like Nigeria, Libya and Algeria.

Move to boost British engineering orders

BY RAY DAFTER

PROCESS PLANT equipment suppliers and the chemical industry are to forge closer links in a bid to boost U.K. engineering orders. There is evidence that Britain's share of the orders placed by chemical manufacturers is slipping.

Mr. Robert Malpas, technical director of Imperial Chemical Industries, said that his company had traditionally bought 90 per cent. of its equipment needed in British plants from U.K. suppliers. The percentage had slipped to 85 per cent.

He was one of the main speakers at a London seminar on the chemical industry's long-planned initiative: Will The Chemical Industry Buy British? The function was organised by the

process equipment suppliers' trade association CBMPPE. This year, the U.K. chemical industry expects to invest £200m. The bulk of the equipment will be supplied by the domestic industry but there is concern within CBMPPE and the chemical sector that the share is slipping.

Studies are now being made into how quickly overseas companies are gaining a substantial part of British orders but it is thought that ICI's experience provides a reasonable indication. As a result, chemical companies, contractors and suppliers are being urged to keep each other more fully informed on their plans and problems. It is expected that raw material suppliers will also be included in the discussions.

Public records for Kew

FINANCIAL TIMES REPORTER

THE PUBLIC RECORD Office shelves on the top three floors and in a mezzanine faner basement. Older documents remain in the old Public Record Office in Chancery Lane.

Documents can be ordered by computer from the two main budgeted estimate in May 1973, which have room for about 300,000 documents, mainly 19th and 20th century, along 84 miles of hole by electric trolley.



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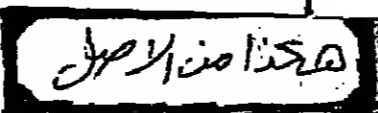
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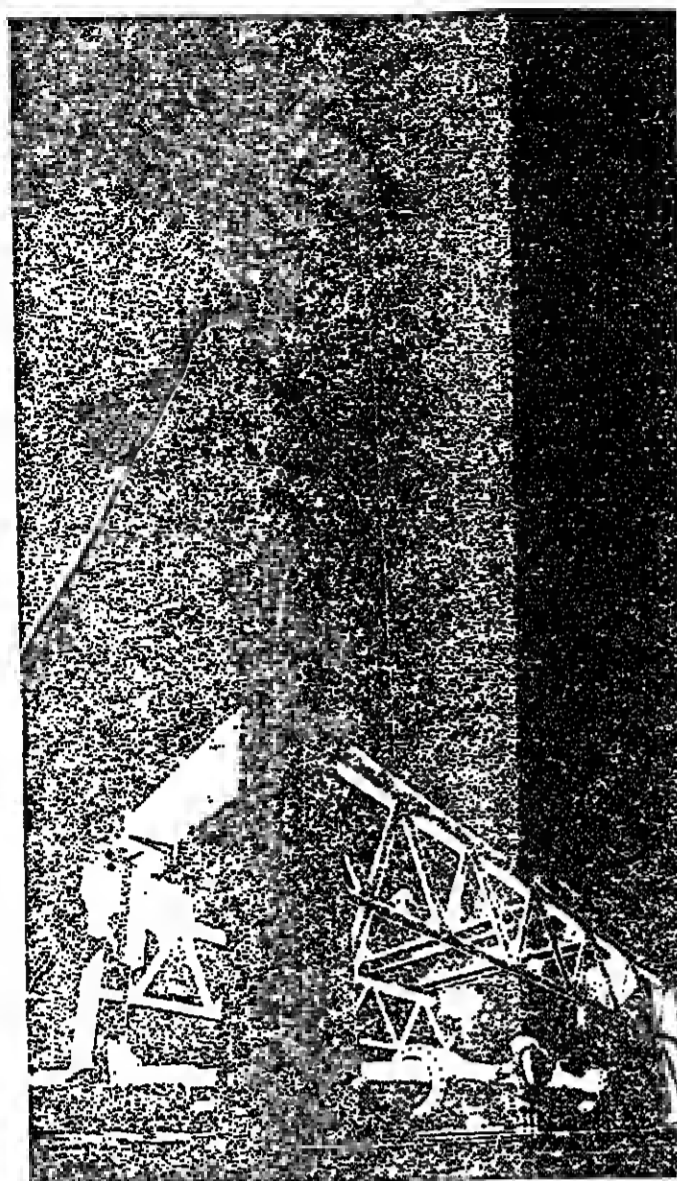
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IT'S GETTING BETTER ALL THE TIME.

Technical Page

EDITED BY ARTHUR BENNETT AND TED SCHOETERS

OFFSHORE INDUSTRIES



Underwater rig for pipeline repairs

Repairs deep under the waves

FEASIBILITY of making repairs to large pipelines at depths of as much as 1,000 feet below the surface of the sea is to be studied by HydroTech Systems under contract to Statoil and on behalf of the Statoff Mobil Group.

The latter is making a study in determining whether it will be possible to lay an oil pipeline from the Safford Field in the North Sea to the coast of Norway, and the HydroTech demonstration will be an essential part of this project.

Simulated repair work, which will depend to a large degree on the application of the U.S. group's proprietary connector, will include the development and provision of special equipment needed to integrate existing technology into a whole system capable of effectively repairing pinwork at these great depths.

Development engineering has already started and the project should be completed in the spring of next year.

HydroTech has so far made more than 300 pipeline connectors in diameters up to 42 inches and in water depths down to 520 feet. Some of the work has been carried out in the hostile waters of the North Sea.

The company has some 150 connectors on standby around the world and has been particularly noted for its 'hot-cut' HydroCouple connector, which solves problems of misalignment and end-cap adjustment in pipeline connections.

In its work for Statoil it will seek to combine four existing techniques — semi-submersible drill rig use; acoustic reference equipment; atmospheric diving systems and special connectors.

HydroTech is at P.O. Box 53364, Houston, Texas 77055, U.S.

SAFETY

Gives greater control of braking

AN ANTI-SKID car braking device incorporating "electronic intelligence" has been developed by Alfred Teves of Frankfurt and is soon to be fitted on some BMW 5 series cars as optional equipment.

The unit has been developed to overcome braking time loss involved in the more traditional cadence braking technique when road conditions are designed to restrict the behaviour of each wheel and to control braking effort in such a way that the vehicle is stopped in the shortest time, but without the wheels locking. It is comparable to the device used on aircraft to prevent wheel lock during braking after landing.

The brake valves received by the brain are compared with a programmed ideal matched to the vehicle's potential. When the measured information deviates from the ideal, then the unit automatically corrects through the hydraulic system.

Teves has also produced a modified hydraulic booster which, says the company, is able to store enough pressure for 12 applications of the brakes, compared with the normal servo system's three.

The unit can only be fitted as original equipment, but it is suitable for all types of car, including front-wheel-drive types, and Teves is holding talks with several European car manufacturers over future supply.

Alfred Teves, Postfach 119155, Gierichstrasse, Frankfurt am Main.

STUART ALEXANDER

HANDLING Simplifies delivery of heavy items

MOST DRIVERS of vehicles delivering heavy items in customers' premises would agree that the most difficult part of the journey is that final section from the back of the vehicle to the point of rest inside the building.

Chloride Automotive Batteries has been faced with the problem for years and has now decided on a solution that might well interest many other companies.

Pioneered by mini-growers in Holland, the system uses a purpose-built, self-powered, fork-lift truck, self-powered, which for the main part of the journey rides "pick-up-back" firmly fixed to the rear of the lorry with its wheels a foot or so off the ground.

On arrival outside the customer's premises, the fork-lift unit can be detached in less than a minute to carry the batteries from the main vehicle right into the storage area at the distributor's depot.

The fork-lifts are taxed like any other road vehicle so that they can cross or go along public roads for short distances as needed.

Chloride Automotive has standardised on ERF 16-tonne payload lorries equipped with the Dutch Kooi fork-lift truck; the lorry can carry 1,000 patented car batteries and it is estimated that the time taken to unload one 'trane of batteries will drop from 30 to 10 minutes.

The company has ordered five units and, if expectations are met, will progressively change its fleet to the new equipment; the requirement will probably amount to 20 units worth about £1m at current prices. More about the fork-lift unit can be obtained from the U.K. agents, Westgate Bristol on 0454 313305. Chloride Automotive is at Dagenham on 01-592 4560.

COMMUNICATIONS Convergence wins PTT approval

"IN THIS business, we are the new boy on the block." The wry admission is that of Kap Cassani, Administrator Director-General of IBM Europe, and the business in question is telecommunications. It was made at a recent meeting in La Gaudie, France.

The term "new" is relative, since IBM has been in line switching for 12 years, launching its 2750 PBX — forerunner of the current 3750 — in 1969.

While telephone switching technology has lumbered slowly ahead in the intervening years, data processing has undergone successive technical revolutions and it is IBM DP "edge" that IBM hopes will make 3750 a winner.

Cassani introduced an electronic document distribution system centred around a 3750 PBX, showing just how the marriage of data processing and telecommunications takes the traditional private exchange away from its traditional role of simply controlling voice communication.

In the "electronic office," the PBX would link word-processing terminals throughout the business organisation and, using idle voice communications lines overnight, distribute information, rather than paperwork. On top of this, the exchange would control building security, central heating and air-conditioning, garage access and other functions usually foreign to the traditional PBX.

The chief difficulty in becoming established in such a traditional business, of course, has been gaining acceptance by the PTTs, who tend to view new players with considerable reserve. "After an initial period are now assisting the PTTs in supporting an advanced PBX system—that is, as a computer system—and in general, the relations between the PTTs and ourselves are now very positive."

One part of the computer company's approach to the market, which must have played a large part in gaining the PTT's confidence, is its Retain system. Primarily an internal device, Retain is a transatlantic terminal network connecting IBM offices with a database containing details of all IBM computer and PBX installations.

Service engineers can refer via a terminal to the database to discover the technical history of each installation and, more important, to seek to diagnose faults fast by finding out whether they have cropped up before in another installation. IBM engineers say they save a 60 per cent "hit rate" on diagnosing in this way, and it is not difficult to imagine the PTT engineers who maintain the PBX equipment.

Systems such as Retain are widely used in data processing for keeping track of computer installations, but are something new in the telecommunications business.

They also represent a prime example of the kind of way in which computer companies are eager to get into the increasingly telecommunication business. They can use their advanced technology to gain an advantage over the traditional communications manufacturer.

MAWDSLEY'S HAS launched a range of variable speed drive systems, using metric motors, to meet both BS 4999 and IEC 34-1 standards.

There are 21 different power outputs in the range, in relatively small steps up 200 kW, so that in most instances an appropriate drive can be supplied "off the shelf." Mawdsley's claims to be the only U.K. company which makes all the units in its drive packages, including both the laminated frame motors, the converter, and the electronic control system.

The company is also supplying the components in chassis form incorporating auxiliary control equipment, at the power converter alone. Both are suitable for building into other manufacturers' control equipment, or for designing into OEM control systems.

The company says it has a plans to market an motor system, arguing that in general an motor plus variable speed control is usually a third more expensive than a comparable unit.

Packaged drives have applications in a wide range of machinery in the wire drawing, plastic extrusion, chemical and food and metal processing industries.

Details from Mawdsley's Zone Works, Durdor, Glos, GL11 5AE (0453 41311).

COMPONENTS

Packaged drive units

BRITISH DISTRIBUTORS and agents for Ontario-made industrial and commercial products are being sought by representatives of nine manufacturers from Canada who arrive in London on November 15.

The list includes: print processing equipment, security, signalling and fire protection devices, heavy vehicle suspensions, aircraft seats, and removable linings for containers, process control instrumentation, and stationery.

Appointments for meetings with U.K. businessmen are being made through the Business Development Branch, Ontario House, Charles II Street, London, SW1Y 4QS (01-930 64041).

TRADE

U.K. agents sought

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COMPUTERS

Severs ties with makers

ARISING largely from a fear of the unknown, the initial adherence of customer to supplier that dominated the earlier days of the mainframe computer market has in recent times seen its counterpart in the burgeoning microprocessor business.

There has been a growing belief that the chipmaker will get to the customer first will, due to the support required, become committed. This has been particularly true with development systems, vital if anything workable is to be designed at all; supplied by the chipmaker, they can only be used to develop a machine based on his own chips.

But this week a new dawn was opened by Tektronix, to date appreciated mainly for its oscilloscopes but recently making itself felt in the digital arena. The company has made another departure with the introduction of the 8002 "microprocessor laboratory"—a complete system for the development of software and hardware applicable to the majority of the chips on the market including the 8080, 6800, Z-80, 9900 and 8085.

Main point about the system is that it allows the designer more freedom of choice in initial (at a cost for the development system perhaps 20 to 30 per cent greater than the chip maker's central system). Furthermore, he will be able to change the menu at a relatively late stage about chip manufacture.

With the 8002 the designer can rapidly and conveniently integrate the software with the hardware prototype. Interactive entry and editing of the program is via a visual display terminal and the 8002 assumes the source code into object code for the chosen micro.

For those who already have software development facilities in a computer, the program can be "downloaded" into a second version of the "laboratory," the 8001, via an RS232C interface.

Tektronix says that it has spent some \$2m in developing the equipment which it claims will strike a completely new path for many companies either unwilling or unable to use the micro. Now from P.O. Box 69, Harpenden, Herts. (Harrowden BS1411).

GEORGE CHARLES

INSTRUMENTS Measuring projector

PARTICULARLY SUITABLE for counting and measuring in applications such as microelectronics inspection, textile testing, particle analysis and metallurgical studies is the 8002 projector from M.S. Optics, able to provide a very bright, highly detailed image.

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In operation the test object is fixed to the stage by spring clamps and a motor drive provides motion in x and y directions, either continuously or in selected steps. There are also special stages that can facilitate the droplet test employed in the paper, industry and the measurement/inpection of yarn. Large format photography is possible direct from the screen. More from P.O. Box 5 Princes Risborough, Bucks HP17 9LL (08444 48681).

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Crendon structures offer all this and more. They are engineered to be adaptable and capable of almost any elevational treatment.

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Building and Civil Engineering

Cardiff M4 stretch won by consortium

WELSH OFFICE has notified its acceptance of a tender for just over £100m, submitted by a consortium of George Wimpey and O'Fairclough Civil Engineering for the construction of the M4, a 12.5 km stretch of the M4. Work on the new section will begin in the near future and will take about two years to complete. The new section will link up with the Tredegar road to St Mellons section, currently nearing completion. Requirements are for 12 km of dual two-lane motorway, 0.9 km of slip roads and improvements and diversion of some 5 km of side roads. There will also be 12 bridges and two footbridges as well as a number of drainage and service subways. Salisbury has decided to set up a large new supermarket at Dunstable, Beds., and the contract for £18m has gone to Wimpeys Luton office. A two-storey, reinforced concrete framed brick clad structure will provide 3,944 square metres for the store and 32 square metres for 19 sublet shops. Lakenheath is the site of a £15m job under which Wimpey will build for the RAF storage, factory and servicing buildings. Glasgow office of Wimpey has won an award from the Irvine Development Corporation worth £1.3m to build 137 dwellings under the designation Stanecastle 3. Completion is for August 1979 and the construction will be in Wimpey No-Fines.

Housing in Yorkshire

ORDERS totalling about £27m have been received by J. Cartwright Construction. The largest, valued at £899,000, is for 96 two-storey flats in traditional construction in the Law Moor area of Bradford, Yorks. The architects are Peter Brown Castelow and Partners, Harrogate. Also, in Bradford the company has been awarded five contracts worth a total of about £885,000. These include the modernisation of dwellings on the Swain House Estate, conversion of houses into modernised and extended flats on the Swain House and Burtley Estates, and the erection of two-storey flats in traditional construction at Carr Bottom Field.

Under another contract the company is to construct 52 dwellings at Liversedge for the Kirkstons Metropolitan Council. The architects for this scheme, valued at £500,000, are the Environmental Design Group, Dewsbury.

£2m. Higgs & Hill awards

TWO London contracts valued together at £2m. have been awarded to Higgs and Hill Building. The first contract is a £1.4m. women's hostel for the Salvation Army Housing Association, work on which is about to start. The new three-storey building, to be known as the New Hopetown Hostel is being constructed in Old Montague Street, Whitechapel, and when complete will provide accommodation for over 150 people in single, double and dormitory rooms. The structure will be mainly load-bearing brickwork with some reinforced concrete work, supported on

cast pile foundations. Consulting engineers are T. F. Burns and Partners and the quantity surveyors are Harry Trinkle and Partners. The second project involves the £600,000 modernisation of the headquarters of the Essex Fire Authority in London. The contract has been awarded by Grand Metropolitan Hotels and is the third phase of a modernisation programme at the hotel, phase two being completed by Higgs and Hill earlier this year. Architects are Sidney Kaye Firmin Partners and the quantity surveyors are M. K. Boydan and Co.

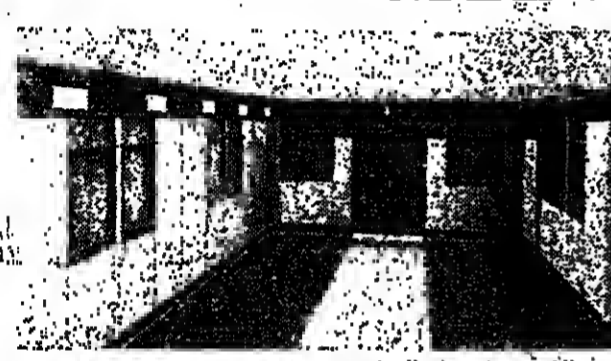
Road under Suez Canal

GGING SHIELDS similar in concept to one designed to drive through London's Jubilee Tube are to be used on the construction of the two-lane road tunnel under the Suez Canal in Egypt. Excavation for the approach roads to the Ahmed Hamdi tunnel is well advanced and the main part of a major civil engineering contract awarded by the Egyptian Government to a joint venture of Osman Ahmed Osman and Tarmac Overseas, is planned to be opened to traffic in mid-1979. At its deepest point the tunnel will be 50 metres below the present canal level—a depth which will permit the Suez Canal Authority to widen the canal and increase the depth from 15 to 27 metres. Corrosion from the salt laden ground water is a problem for the manufacturers and all hydraulic cylinders and rods have been heavily glazed with nickel and chromium. The 4.2-km. tunnel at El Shaballa, 13 kms north of Port Suez, is planned to be opened to traffic in mid-1979. At its deepest point the tunnel will be 50 metres below the present canal level—a depth which will permit the Suez Canal Authority to widen the canal and increase the depth from 15 to 27 metres. Corrosion from the salt laden ground water is a problem for the manufacturers and all hydraulic cylinders and rods have been heavily glazed with nickel and chromium. The 4.2-km. tunnel at El Shaballa, 13 kms north of Port Suez, is planned to be opened to traffic in mid-1979. At its deepest point the tunnel will be 50 metres below the present canal level—a depth which will permit the Suez Canal Authority to widen the canal and increase the depth from 15 to 27 metres. Corrosion from the salt laden ground water is a problem for the manufacturers and all hydraulic cylinders and rods have been heavily glazed with nickel and chromium.

Jarvis wins three jobs

CONTRACTS to the value of £2.1m. have been awarded to J. Jarvis. Its Southampton affiliate is building a two-storey extension to the Southampton branch of the Bank of England to the design of Building Design Partnership. In London 22,000 square feet of office accommodation and two flats within a new block and 3,200 square feet of factory space

in an adjoining industrial building are being built for Collin Estates, a wholly-owned subsidiary of Great Portland Estates. The architect is Elsom Pack and Jarvis. In Slough, Jarvis is to erect two office blocks designed by John Gill Associates for Thomson Anglo-Continental Properties. The two blocks will provide 10,000 square feet of lettable office space.



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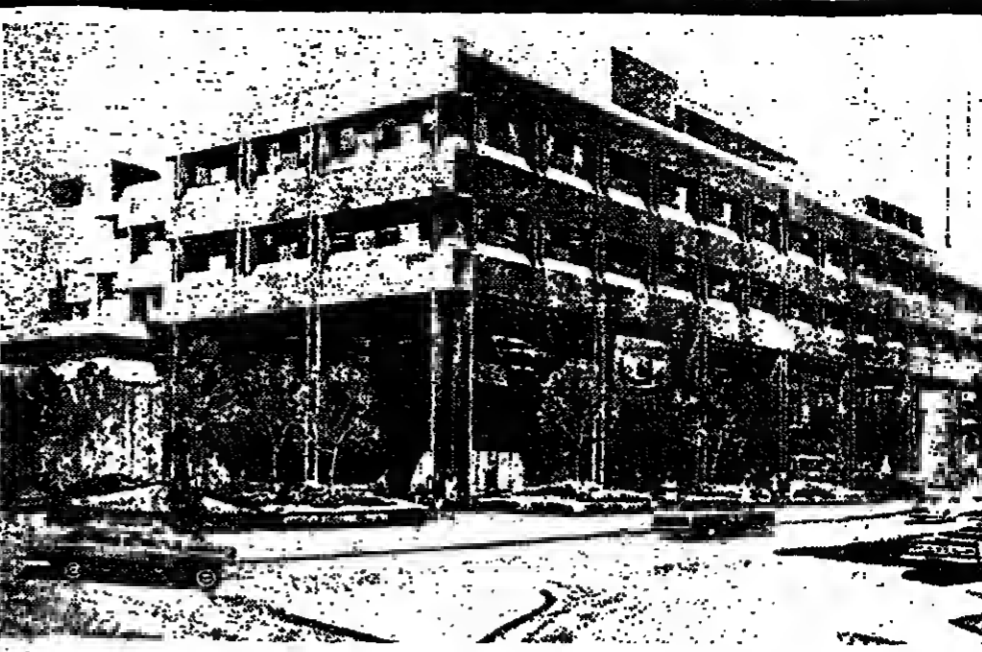
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Headquarters for the Yorkshire Bank in Leeds, depicted in this artist's impression, are to be built under a contract worth £2.7m. which has just gone to John Laing. Yorkshire Bank has grown so rapidly over the past few years that its existing headquarters have become totally inadequate and the new five-storey block is being planned to provide a gross floor area of 11,300 square metres with full air conditioning.

Merrion Way is the site selected for this prestige building which will have an external cladding of brown granite and G.R.P. paneling. Architect is Abey and Hanson Row and Partners, of Huddersfield. Laing has also announced that it is to build £11m. worth of homes for over 350 people in New Skelton, Cleveland, for the borough of Langbaurgh. Architects are Lindsay Walker Forster, of Darlington.

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Big centre for Bank of Scotland

PREMISES for the Bank of Scotland are to be built under a major £10m contract awarded by the Bank to Sir Robert McAlpine and Sons. The new centre will be in Edinburgh and will be 80 metres by 70 metres on plan, 10 metres high. Brick cladding will be used on a reinforced concrete frame and the structure will be air conditioned and centrally heated throughout. Floor space provided by the structure is calculated at 32,000 square metres. Bank of Scotland is providing architectural services while the premises are being completed by McAlpine and Sons. Completion is for mid-1979.

Big clean room order

AN ORDER in excess of £400,000 for a complex of dust-free and air-conditioned clean rooms with support areas and administrative offices, has been awarded to Envars (U.K.) by Hawker Siddeley Dynamics of Loughborough, Leicestershire. The rooms are to be used for the production of micro-electronic components for guided weapons systems in which the circuitry is so small and intricate that the inclusion of even a microscopic dust particle could lead to rejection. Together the clean rooms will form the largest clean conditions facility to be built in Britain, covering a total area of approximately 15,000 square feet and employing about 100 people.

New factory for Avon

AVON Industrial Polymers (Bradford) is to open a new 100,000 square foot factory at Ladydown, Trowbridge, Wilt. It will cost £1m. Work has just started on clearing the 4.2-acre site and the company will rent it on a lease from the developer, Miller Buckley Developments. The factory will be used for the manufacture of hose for

British and Continental car manufacturers. The first 65,000 square foot of shop floor and offices at Trowbridge is expected to be completed by the spring. CONSTRUCTION companies, hotel managements and individual home owners faced with the problem of repairing chipped or scratched baths, washbasins and other sanitary ware can now call upon the resources of Bath Services which has set up mobile units able to call on sites throughout the country. Repairs and resurfacing operations are carried out with the aid of a ceramic-based epoxy resin which is applied to the affected area with a spatula and then sealed by an infra-red drying unit. Repairs are invisible and plumbing does not have to be disturbed. This company, which has its headquarters at 448 Edware Road, London, W2, has increased its annual turnover in two years from £24,000 to £150,000. Several big London hotels are now being serviced by the company whose executives will shortly be visiting Barbados and Santa Lucia to negotiate contracts.

Limestone quarrying

STEELY Minerals, now modernising production facilities at its limestone quarry at Thrislington, Co. Durham, has awarded a £350,000 contract to the Engineering Division of John Laing Construction, of Dormanstown, Cleveland. The Laing work involves building a reinforced concrete bunker for loading rail wagons at the rate of 1,000 tonnes an hour. Completion is due next June.

holders in Britain understand the basic facts while 64 per cent of those questioned say that cavity wall insulation has big advantages. The investigators think much of the knowledge of what the insulation method is all about comes from the Government's "Save It" campaign. And it is worth while repeating the basic facts that wall insulation will cut down heat losses through the walls of the typical average three-bedroom semi from 35 per cent of heat input to 10 per cent. In other words, central heating bills can be cut by one-quarter. At the same time 25 per cent of the heat input in such a house escapes through the roof. Loft indeed.

Awareness of heat loss grows

INSULATION of cavity walls by foam injection or fibre fill methods, which was a growing industry till the unfortunate intervention of the DOE's housing inspectors making local authorities responsible for each and every operation under a building licence, is nevertheless something about which the public at large know a great deal. This is the finding of an 18-month long survey carried out by the largest of the companies in Britain involved in the cavity wall insulation business, Cape Insulation Services, inheritors of the ICI operation based on "U-tom" and its derivatives. On the basis of the survey, some 90 per cent of house-

holders in Britain understand the basic facts while 64 per cent of those questioned say that cavity wall insulation has big advantages. The investigators think much of the knowledge of what the insulation method is all about comes from the Government's "Save It" campaign. And it is worth while repeating the basic facts that wall insulation will cut down heat losses through the walls of the typical average three-bedroom semi from 35 per cent of heat input to 10 per cent. In other words, central heating bills can be cut by one-quarter. At the same time 25 per cent of the heat input in such a house escapes through the roof. Loft indeed.

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£6m. contracts for Boot

CONTRACTS totalling £6m. have been obtained by Henry Boot Construction. Nearly £1.3m. of the total is for major extensions to Esbott water pollution control works for the Yorkshire Water Authority. Four reinforced concrete consolidation tanks, each 36 metres long by 16.5 metres wide and 4 metres deep, are to be constructed in situ reinforced concrete piles. Also included in the contract are a pumping station, roads and pipework. A further £1m. is for the design and construction of a coal preparation plant at the National Coal Board's Askern colliery, included in the 24-month contract are concrete foundations and a second ground-floor slab for a washery building and a three-storey control and administration building.

Henry Boot has also been awarded a contract worth over £200,000 by The Distillers Company and new track laid including a stillhouse at the Wandsworth distillery of John Watney and Co. In a second NCB contract, worth £254,000, Henry Boot is to construct a new winder house at a Frickley colliery, Doncaster, and a 2,000-ton Oregrave works, near Sheffield.

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LABOUR NEWS

NEWS ANALYSIS - MOTOR INDUSTRY

A fateful day for Leyland

BY ARTHUR SMITH, MIDLANDS CORRESPONDENT

TO-MORROW'S meeting of Leyland Cars shop stewards in London... The Conservative Party has already given its backing to the federation...

arguing that in trying to achieve so much in one go, management's bluff should be called... The rationale is understandable. Given that most labour relations problems are caused by glaring pay anomalies...

Police strike 'almost certain without big pay rise'

BY NICK GARNETT, LABOUR STAFF

A POLICE strike is a virtual certainty if members of the force are not given a large pay rise before the end of the year... Mr. Griffiths, Tory MP for Bury St. Edmunds, said the Government must have the opportunity to make a sizeable offer on Tuesday...

Daly urges miners to back incentive scheme

MR. LAWRENCE DALY, general secretary of the National Union of Mineworkers, yesterday urged a huge vote in favour of an incentive bonus scheme for the pits to a ballot planned for this month... Mr. Daly said the alternative was a confrontation with the Government...

Veterinary lab. strikes would hit farmers

UNION OFFICIALS said yesterday that animal health services to farmers would be jeopardised from next Monday by threatened selective strikes of staff at the Ministry of Agriculture's Central Veterinary Laboratory... This is the latest move in a three-year struggle by the Institution of Professional Civil Servants against exclusion of the laboratory's 600 staff from the London allowance of £275 a year...

ACAS decision 'a mockery'

By Our Labour Staff THE COUNCIL of Engineering Institutions yesterday said the failure of the Advisory Conciliation and Arbitration Service to recommend union recognition for the U.K. Association of Professional Engineers at W. H. Allen and Sons of Bedford... The ACAS decision was made in spite of a majority of engineers involved wanting the association's recommendation...

The Royal Bank of Scotland

INTEREST RATES

The Royal Bank of Scotland Limited announces that with effect from 17th October 1977 its Base Rate for lending is being reduced from 7 per cent. per annum to 6 per cent. per annum.

The maximum rate of interest allowed on Deposits lodged for a minimum period of seven days or subject to seven days' notice of withdrawal at the London Offices of the Bank remains unchanged at 3 per cent. per annum.

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THE LONG-TERM CREDIT BANK OF JAPAN, LTD. Negotiable Floating Rate U.S. Dollar Certificates of Deposit Maturity Date 20th October 1980

Agent Bank Manufacturers Hanover Limited

Coutts & Co. Coutts & Co. announce that their Base Rate for lending will be reduced from 7% to 6% per annum for balances in their books on and after 17th October, 1977 and until further notice. The Deposit Rate on monies subject to seven days' notice of withdrawal will remain unchanged at 3% per annum.

APPOINTMENTS J. Lancaster joins Rotork Mr. Jeremy Lancaster, chairman and managing director of Wolsley-Hughes has been appointed a non-executive director of ROTORK. Lord Gibson has become chairman of the NATIONAL TRUST. He succeeds the Earl of Antrim who died last month.

CONTRACTS AND TENDERS

NOTICE INVITATION TO BID No. 01/Proc/PIU/77 Fourth Education Project, IBRD (Loan No. 1237 IND). The Government of the Republic of Indonesia, through the Project Implementation Unit (P.I.U.) of the Ministry of Manpower, Transmigration and Cooperatives is embarking on a programme of expansion of vocational Training Centres, financed by a loan from the International Bank for Reconstruction and Development (I.B.R.D.).

EPAL EMPRESA PÚBLICA DAS ÁGUAS DE LISBOA TENDER WATER SUPPLY TO LISBON AREA: WATER CONVEYANCE CONDUIT CASTELO DO BODE - VILA FRANCA DE XIRA INTERMEDIATE STRETCH Tenderers are advised by this public announcement that on the 2nd February 1978, at 3.00 p.m. at the Chief Office of "EPAL- Empresa Pública das Águas de Lisboa," 22 Avenida da Liberdade, Lisbon-Portugal, the opening of tenders will take place for the adjudication of the above entitled works.

LEGAL NOTICES In the HIGH COURT OF JUSTICE Chancery Division Companies Court in the Matter of MERRINER PROPERTIES LIMITED and in the Matter of The Companies Act, 1948. NOTICE IS HEREBY GIVEN that a Petition for the Winding up of the above-named Company by the High Court of Justice was presented to the said Court by THE COUNCIL OF BOROUGH OF LYONS of Lyons, France, on the 17th day of October, 1977.

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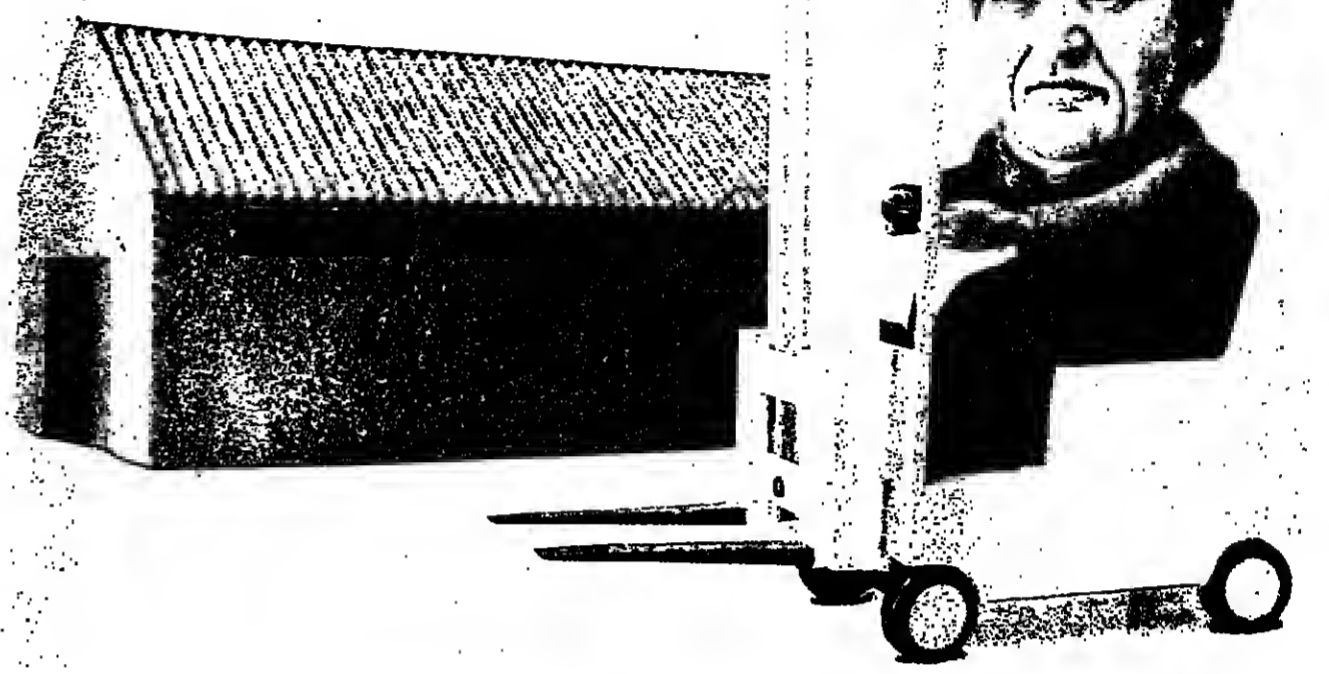
Which one costs industry the most?

ALL OUT

Strikes?



Storage and materials handling?



Of course, it's a trick question, but the answer is nonetheless surprising.

Some gloomy facts.

In 1976, strikes on British production lines cost less than £200 million in lost output.

Industrial fires cost less than £200 million in material damage.

Inefficient storage and materials handling cost more than £2,000 million.

We hope that you have escaped the first two of these problems.

It is almost certain, however, that you haven't escaped the third. For, a survey by the Department of Industry showed every company was paying more than it should for its storage and materials handling.

Some cheerful facts.

Dexion's one job in life is to deal with this problem. We can look at your storage and materials handling system and tell you if it needs improving.

If it does, we can re-design it, whether your company is a multi-national or a family firm.

This is not, as you might suppose, just a way of selling our own products.

Although we make and sell a wider range of storage equipment than any other company in the world, we won't recommend any of it if we find that it's not the best solution.

For the kind of results you can expect to achieve, let us quote two case studies from the Department of Industry:

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Cube utilisation up from 12% to 32%. Number of movements down 45%. Stockholding reduced. Machine productivity increased. Investment recovered in two years.

2. A finished goods store.

Cost of order selection labour down 75%. Cost of stores labour down 50%. Investment recovered in one year.

You can read 100 of our own case-histories in "The Book of 100 Answers."

Send for it now. And next year, you could have no more to cope with than fires and strikes.



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Fires?

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Midland Bank Base Rate
Midland Bank Limited announces that with effect from Mon. Oct. 17th 1977, its Base Rate is reduced by 1% to 6% per annum.

BASE RATE
With effect from the close of business on 17th Oct., 1977, and until further notice, TSB Base Lending Rate will be 6% per annum.

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Another oil price rise an economic necessity
By DOINA THOMAS
BARRAIN, Oct. 16.
THE FIRST SESSION of the two-day conference on Gulf finance which started today in the Hilton Hotel here, concentrated primarily on the moral and economic necessity of increasing the price of oil and knocking fears about the second "Arab weapon".

Businessman's Diary
U.K. TRADE FAIRS AND EXHIBITIONS
Date Title Venue
Current British Genius Exhibition (cl. Oct. 30) Bute Park, S.W.11

OVERSEAS TRADE FAIRS AND EXHIBITIONS
Date Title Venue
Oct. 20-26 Helsinki International Technical Fair Helsinki, Finland

BUSINESS AND MANAGEMENT CONFERENCES
Oct. 18 Management Training Consultants: Successful Supervision Course Rembrandt Hotel, S.W.7

Barclays Bank Base Rate
Barclays Bank Limited and Barclays Bank International Limited announce that with effect from the close of business on 17th October, 1977, their Base Rate will be decreased from 7% to 6% per annum.

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The threat of sanctions over South Africa

By BRIDGET BLOOM, Africa Correspondent

Changes and corrections

THE DISCUSSION of the proposed autumn package of tax reliefs has become hopelessly confused, in part because of the terminology used.

Such authorities are often tempting to Governments. But experience has shown that they are dangerous. Lines can get crossed and the message intended for one audience can be picked up by another.

Traditional The distinction is easy enough to make in the middle of a financial year for which objectives have already been set.

One last chance for Sr. Soares

IN THE 14 months since it assumed office, Portugal's minority Socialist Government has made little headway in solving the country's pressing economic and political problems.

Constitution Now President Eanes has given the Government one last chance to start setting the country's affairs in order.

Technocrats If he does intervene, President Eanes is most likely to do so by insisting on the appointment of a new team of Ministers of his own choice.

RADICAL DEMANDS for sanctions against South Africa have been heard for so long that, like a cry of wolf, they have lost credibility.

The most notable verbal pressure in recent weeks was Washington's reaction to the death in detention of the black South African leader, Mr. Steve Biko.

Disquieting though this must have been for Pretoria, South Africa is believed to be even more concerned at more subtle actions of the U.S. Government.

Many observers believe that it was this—rather than a fairly minor tightening of the self-imposed U.S. arms embargo on South Africa in June, and what appears to have been official discouragement of a visit to Washington by Senator Owen

Precisely what those actions might be was not spelled out. It is almost point whether the then or since. Officials deny that original initiative for the current pressure has been applied to close Anglo-American cooperation on Rhodesia beyond that implicit in the Mondale statement.



Confrontation in Vienna: Vice-President Mondale (facing camera, left) and Mr. Andrew Young next to him, face Mr. Vorster, the South African Prime Minister (foreground right).

U.S. leadership. Britain, West Germany, France, and Canada were to be precipitate action on Africa. The arms embargo is the most likely, if only because it is the only one that is not subject to political difficulties in backing.

But how likely are sanctions and what might they amount to? In the immediate future, every-thing depends on what happens in the Rhodesian and Namibian negotiations. Both are now entering critical phases.

Clearly the U.S., and certainly the British Government, hope that the tough talk of the past few months will persuade Mr. Vorster to co-operate. But in case he does not two types of sanction are currently under discussion.

There are however much more greater difficulties with a UN-sponsored oil embargo. The legislation will be introduced in the same Chapter Seven period as their mission, and possibly the whole Rhodesian initiative will have failed.

Other areas where the U.S. might act unilaterally are the supply of oil to Rhodesia and the Namibian initiative. Both these areas are already under discussion.

Washington will tell you what or even whether such weapons will be used—possibly heeded. Mr. Andy Young, in an interview with the Financial Times last week said that the administration wanted to keep the option of South Africa flexible.

MEN AND MATTERS

All shipshape for George The imminent renewal of hostilities at Grunwicks will be watched with more than average interest by the Reverend Basil Watson, vicar of St. Lawrence Jewry in the City.

Highspeed talker Peter Parker, chairman of British Rail, has a well-developed sense of theatre. Last Friday he announced that a "decade of doubt" about our railways has ended.

Full house The next speaker in the series, which has the overall title "Russian Communism and Christian Order," will be Robert Moss, director of the National Association for Freedom.

Arabian insights A book just released shines a light into the lives of top people in the world's richest country.

Cold for charities As a series of annual reports from the major charities will reveal in the next few months, inflation is putting a stranglehold on the doers of good works at home and abroad.

They gave me back my home, my friends, my whole way of life

When one has known a certain way of life, and rising costs look like taking it all away, who is there for people like us to turn to?

There is the Distressed Gentlefolk's Aid Association. The DGAA is run by people who understand. They know that we want to stay in our own homes, surrounded by our possessions, and close to the friends of a lifetime.

The more you can help the DGAA, the more the DGAA can do to help others. Donations are needed urgently. And please, do remember the DGAA when making out your Will.

Save the Children is hoping that big business will take pity. It is even starting to harp on the fact that last year workers contributed £250,000 through a "penny-a-week" scheme.

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"Help them grow old with dignity"

FINANCIAL TIMES SURVEY

Monday October 17 1977

A President under pressure

by David Housego
Asia Correspondent

The Philippines

President Marcos has ridden out a difficult year with his popular standing still high. But the economy is not growing fast enough to meet demands for more jobs and higher incomes. Martial law is also coming under increasing criticism.

RESIDENT MARCOS is a man by thirty on challenges. There have been plenty of them over the last year. He had been under pressure from the new American administration and from Congress to put a stop to the alleged torture of political prisoners and to release those held without trial. Congress picked up its warnings with a keen cut in military aid. He has been accused by the Geneva-based International Commission of Jurists, using martial law, imposed five years ago, to perpetuate his rule. Their accusation would not matter very much if President Marcos was not so conscious of his image abroad and such statements did not lend light to similar outrages by the police in the Catholic Church and the student movement at me.

The threat that Libya might step up its help to the rebel National Liberation Front (NLF) in the south, or that Arabs would deny him access to oil or money, pushed Marcos into negotiations with the MNLF leadership, whom he otherwise would have defeated on the ground. At least the economy has failed to show many signs of pulling out of the recession, with industrial output registering only small advances. The combination of the leap in oil prices, sagging demand for the country's key commodity exports, and now the spectre of continuing sluggishness in the crucial markets of the United States and Japan has meant that President Marcos has been unable to raise any real improvement in living standards for the majority of his people since 1973. President Marcos has handled these challenges with his characteristic showmanship, political skill and showmanship

seeming to make major concessions but then pulling the mat from under them. This he made much public play out of the release of political prisoners—but it has since emerged that some were not "political" at all or that they were already free. He has said that he would phase out the military commissions (tribunals)—but his one opponent of political stature, Benigno Aquino, has failed to get his case transferred to a civil court and the commissions still have a backlog of outstanding cases. An agreement mediated under Arab auspices, held out the prospect of autonomy for the south. But it has now been buried amidst mutual distrust and the MNLF has again taken to arms. Killing last week 33 Government troops in a carefully planned ambush.

Flamboyance

Showmanship is not an asset to be dismissed lightly in the Philippines. It was the flamboyance of President Marcos and his wife Imelda that largely won him the elections of 1965 and 1969. He has established a large personal following in a country where personal allegiances count for more than the broken pledges of politicians. Filipinos have long taken with a pinch of salt the promises doled out by their leaders. It is a tribute to Marcos' political skill and showmanship

that he has been able to unite the country more than at any time since independence by breaking the power of the regional barons, who were able to challenge the Government through the strength of their private armies. He has brought them to heel by a mixture of force and patronage while offsetting their continuing influence by creating rival business empires closely dependent on himself and his wife. The price for this policy is that corruption is probably as great as ever.

He has won the military to his side by expanding its strength and conferring on it new privileges. He has pushed the Catholic Church, with its immense influence through the pulpit and the education system, into a corner by holding above it the threat of legalising divorce and abortion. At the end of the day perhaps the most remarkable feat is that even his opponents concede that his popularity is such as to make him the likely winner of a free election. That is no mean feat after 12 years at the helm, including five of virtually dictatorial rule.

But showmanship is no solution to many of the real difficulties the country faces. On the economic front there is the immediate problem that with little sign of a pick-up in the major industrialised countries, the Philippines cannot confidently look to an increase in exports of the magnitude of 18

per cent. a year on which it now counting. Shortages of foreign exchange—and there is a limit to what the Government can go on borrowing—slow down the whole momentum of the economy and with it the pace at which jobs and real increases in income can be generated.

Beyond that there is the serious imbalance between a high cost, heavily protected, inefficient industrial sector and the immensely diverse rural areas, which as a whole cannot provide the investment industry wants or purchase the goods it manufactures. It is a contrast seen at its most dramatic in the ostentatious wealth of Manila itself and the poverty of the slums around, to which landless labourers have fled in search of work.

There are some hopeful straws in the wind that the Government is encouraging structural changes through greater investment in rural development and encouragement of labour-intensive industries which would further diversify Philippine exports. Understandably it is worried that its efforts in the latter direction could be thwarted by growing protectionism in the west.

There are equally ominous signs, however, that the Government is going to be lured by the temptation of investing in multi-million dollar prestige projects, such as an integrated steel mill and a petrochemical complex, notwithstanding the

surplus capacity in the area in these products. It is more jobs and higher incomes that the Philippines needs at this stage in its development rather than an unwelcome boost to industrial costs that would result from such major ventures.

Defeated

Another genuine problem—and one that defeated both the Spanish and the Americans—when they ruled over the Philippines—is the Moslem secessionist movement in the south. The ceasefire negotiated with the MNLF last year is now in holes. President Marcos hopes to contain an extension of the fighting by cutting off the MNLF's source of arms. Hence his wooing of President Gaddafi and his declared intention to drop the Philippines' claim to Sabah, which has been used as a transshipment point for arms often financed by Libya. In his recent public remarks, Mr. Marcos implied that renunciation of the Sabah claim would bring the revolt to an end. But the causes of the discontent in the south lie deeper, in a combination of religion, poverty and the loss of land by the Moslems. Until they are resolved there is little hope of real peace.

There is also a genuine political problem. In a nutshell it is how to reconcile the authoritarianism that has now become an established factor in

Philippines political life with the country's well entrenched democratic traditions. In his book "Notes on the New Society of the Philippines II" published last year, he dismissed opposition to his regime as "anti-Filipino." It is a cavalier approach that will become increasingly difficult to sustain.

There is a growing impatience with the restrictions of martial law, with the curbs on the Press and trade unions, and the supervision of political debate in the university. The hostile crowds who gathered in Manila in August before the World Law Conference, and then again in September on the fifth anniversary of martial law, were the largest demonstrations against the regime since 1972. Unless President Marcos can satisfy what one supporter calls "the hunger for critical speeches," he risks playing into the hands of the extremist New People's Army—the Maoist revolutionary group that has been behind a number of violent clashes with the armed forces this year. They already have a fertile breeding ground for their propaganda in the country's disparities of wealth.

President Marcos is ready for a relaxation of martial law. His justification for not lifting it completely is that the law and order situation in the country does not permit this. Instead he has promised local elections for next year and possibly elections to the National Assembly in

1979. This is in line with his much delayed plans for a return to "normalcy," which originally included elections to the National Assembly this year. But whatever the timetable, it is clear that he has no intention of letting power slip from his hands. The army is behind him in this as it now has a strong vested interest in a martial law regime. President Marcos has also inevitably made too many enemies in his climb to the top to lightly see power fall to a rival.

What he seems to envisage is a "guided democracy" in which he would remain as President rather than a return to the parliamentary system of pre-martial law days. The amendments he has made to the constitution give him the power, even when the national assembly convenes, to rule by decree over the head of the assembly. In partial justification for this blatant perpetuation of his authority he can fairly ask who else would run the Philippines so well. At the moment it is difficult to name anyone.

What worries a great many of his supporters, and those in the business community concerned with long-term investments, is that this scenario does not include the creation of institutions with sufficient strength to ensure smooth continuity when President Marcos does eventually go. Their fear is that power could

devolve to his wife Imelda as part of an almost dynastic succession. Impetuous, over-generous in her patronage towards a close circle of friends prone to spend scarce resources on embellishing Manila—of which she is Governor—with expensively equipped cultural and sports centres, she is a target of muted criticism. Alternatively, the army might stake its claim to power, placing the Philippines under a heavy-handed, Chile-style, right-wing dictatorship. By allowing such fears to flourish President Marcos is, of course, buttressing his own position and protecting himself from an assassin's bullet.

What gives hope for confidence in the long-term stability of the Philippines is the combination of political skill, intellectual ability and commonsense which has helped to keep President Marcos in power for so long. He has attracted round him an impressive array of technocrats—at ministerial level men like Cesar Virata, the Secretary for Finance, Vincente Paiermo, Secretary for Industry, Blas Ople, Secretary for Labour, and Gregorio Lizaro, the Governor of the Central Bank. They have long stayed loyal to him.

Asphalt

He is slowly building up the country's infrastructure and encouraging long-term planning. There are no more of the so-called "political roads"—those short stretches of asphalt that politicians in pre-martial law days paid for at election time to win constituency votes.

The law and order situation has improved to an almost embarrassing extent. Outside the southern provinces and Central Luzon, where the New People's Army is active, it is difficult to see any real argument for maintaining martial law or locking up so many political prisoners. The days of private armies and gun-toting gangsters seem to have slipped into the distant past.

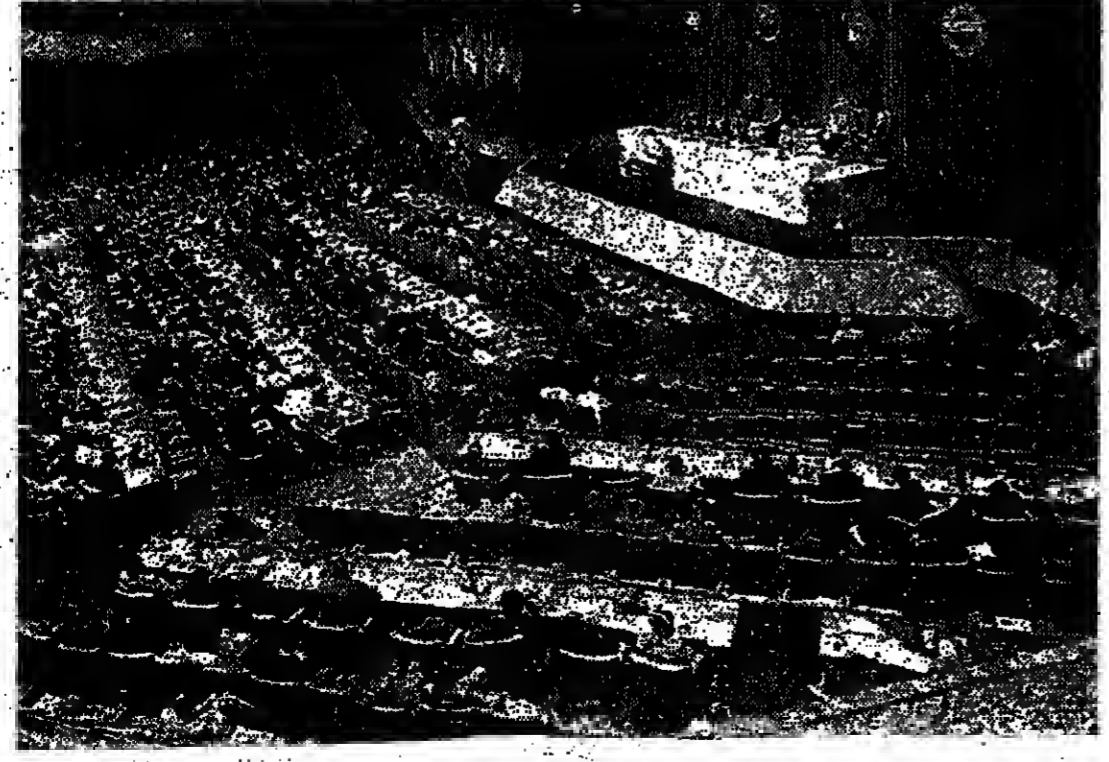
President Marcos does have a genuine commitment to social change even though the land reform programme is moving forward painfully slowly and his goal of alleviating poverty is marred by an apparently insatiable appetite for wealth and power. He is not a heavy-handed autocrat. There is no

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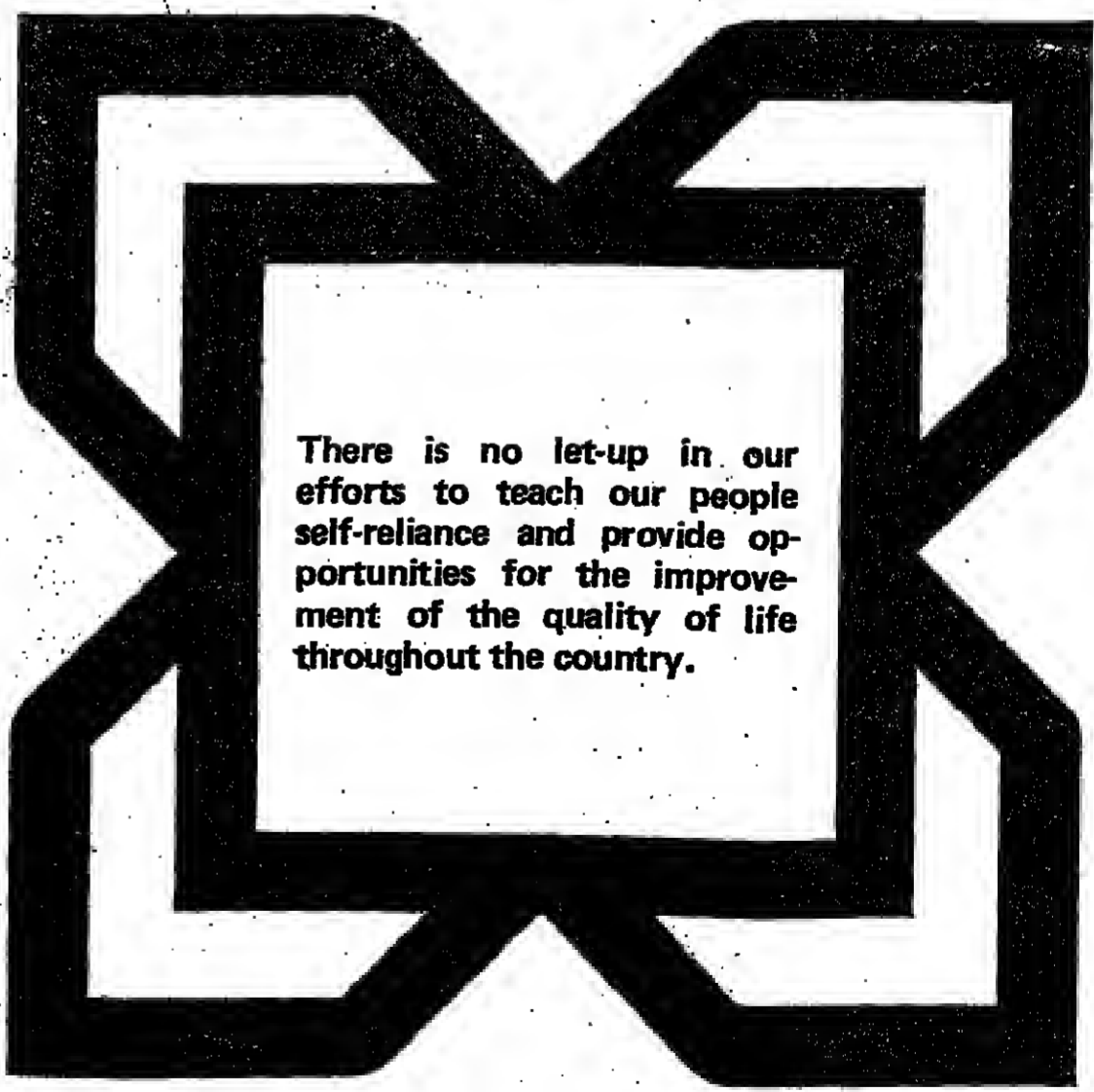
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THE PHILIPPINES II

Payments deficit cut back

TUCKED AWAY in the back of their minds as President Marcos's financial advisers do their sums on the future development of the economy is the hope that the Philippines might become an oil producer before too long. The excitement at this prospect is understandable. The tempo of the Philippine economy is determined by the availability of foreign exchange. This is a legacy of the import substitution programme of the 1950s and 1960s which has left industry in what is now a familiar vicious circle in developing countries, with an ever larger appetite for imports of raw materials and capital goods. A major setback in the flow takes an unacceptable political toll in terms of loss of jobs and a drop in real wages. Since the oil crisis of 1974 the Philippines has been living with a chronic trade imbalance. A trade surplus of \$275m. in 1973 was transformed into a deficit of \$449m. in 1974. This deficit climbed to \$1.2bn. in 1975 and fell back marginally last year to \$1.1bn. Behind this sharp deterioration was first the jump in the oil bill which rose fivefold in three years to \$801m. in 1976—equivalent to 20 per cent of imports. Second, the Philippines has not had the luck of other South-East Asian nations in its traditional earnings from commodities. Sugar, which accounted for 27 per cent of its export receipts in 1974 has slumped in price, and copper has fallen back as well. It has not the tin or rubber on which Malaysia, for example, has prospered. The net result has been that to keep its industry going by providing the imports on which it depends, the country has been living increasingly on credit. Outstanding debt has risen from \$2.3bn. at the end of 1973 to \$6bn. by June this year—though the pace of net indebtedness is now likely to slow down. As part of its borrowings from the IMF's extended fund the Government has now agreed that this year new commercial loans of a maturity between 1.5 years would not exceed \$360m. This figure was set in the light of the IMF's concern that the debt servicing ratio—as measured by repayments of interest and principal this year, including IMF obligations, as against earnings on current account last year—has reached 22 per cent. This is beyond the level generally considered prudent for developing countries. But nonetheless there has been no shortage of commercial institutions willing to lend to the Philippines. The Government is also seeking during consultations with the IMF in January to get the ceiling raised by 15 to 20 per cent on the grounds that inflation has reduced its relevance. If it succeeds—and all the signs point to that direction—it will be largely due to the impressive skill with which Mr. Cesar Virata, the Finance Secretary, has juggled with the balance of payments accounts to the reassurance of both bankers and the IMF. Thus the overall deficit of \$521m. in 1975 was pared to \$184m. last year. The prospects this year are that the account will be roughly in balance. Nonetheless skilful house-keeping is not enough to provide an answer to the Philippines more fundamental problems. GNP has been rising at an average annual rate of less than 5 per cent over the last three years, which, with an annual population increase of 3 per cent, leaves little room for any general rise in incomes. On the basis of Central Bank statistics real wages for skilled and unskilled workers in fact fell by about 25 per cent between 1973 and 1976. Small scale farmers (particularly rice growers) may have seen some increase in their living standards though this is hard to quantify. For the bulk of the 55 per cent of the labour force working on the land, there has probably been a drop in real earnings in recent years. Certainly depressed urban wages would suggest a continuing drift from the countryside to the town and that the new jobs that have been created have made little impact on the massive size of the unemployed and underemployed labour. Those who have gained are the business and industrial community with in particular, a concentration of wealth around Manila and some of the regional centres. The numbers of the "better-off" are larger, but disparities in wealth have grown wider. Output in manufacturing has registered disappointing increases, reflecting the limited size of the domestic market and the absence of any surge in purchasing power. Industrialists have been slow to get into exporting, understandably perhaps given the easy glide that high tariff barriers provide them with at home—though this is beginning to change. Private investment has also been slack as the more obvious import substitution opportunities have been exhausted. Overall this represents a picture of a high cost industry working at low levels of capacity and unable to provide jobs or incomes in adequate proportion to the new entrants to the labour market. It is also a picture of increasing population pressure on the land with the richest areas already heavily exploited and the uplands in danger of erosion from hasty deforestation as farmers seek to extend their frontiers. These generalisations about the lopsided structure of the economy are born out by its performance over the past 18 months. In contrast, for instance, Malaysia's 11 per cent growth last year, the Philippines achieved just 6.3 per cent, and seems unlikely to meet its target of 7 per cent this year. A further encouraging sign is that the inflation rate, which was 33 per cent in 1974, was brought down to 6 per cent last year and only marginally rose to 7 per cent in the first six months. It is difficult, however, to reconcile this official figure with the Central Bank's reporting of a 26 per cent growth in the money supply in the first half and Government claims of a 7 per cent growth in GNP. A possible explanation is that the pace of inflation has in fact returned to a two-digit level. Thus with the balance of payments dictating the momentum of the economy, any shift in the trade account is of major importance. The Government is hopefully looking to an annual 18 per cent growth in exports to sustain industry's needs. But any major parting of the import bill through the discovery of domestic sources of oil would provide the opportunity for a restructuring of the economy. Whether that Philippines would take advantage of it is a moot point. What has now been officially accepted is that the import substitution of the 1950s and 1960s was a failure except in the skills it helped to create. It has left distortions of cost and price that are now difficult to remove without doing battle with the strong local and foreign interests that have politically backed President Marcos. Both the IMF and the World Bank have long pressed for a lowering of tariffs to encourage competition and diminish costs—but so far with little success. One exception may be the Government's present clumsy challenge to the tyre industry. What the Government has not decided is the future direction of its policy. President Marcos has called for a balanced agricultural and industrial development which is a way of avoiding an immediate choice. Beneath him there are a babble of voices pressing for advance in different directions. A powerful lobby would like to see a deepening of the present industrial structure. It argues for the construction of an integrated steel mill (as a cushion against the disruptions to supply that occurred in 1974), a copper smelter (on the dubious premise that the larger the downstream operation the greater the value added even in the depressed state of copper prices) and a major petrochemical complex. Parallel with this is pressure for the Philippines to embark more extensively on the manufacture of intermediate goods. A case in point would be the car and truck industry where the Government already has in hand the laboriously labelled Progressive Car Manufacturing Programme and the Progressive Truck Manufacturing Programme. The aim in both cases is to increase the proportion of locally manufactured content. In practice such increases are measured as much by the high nominal value at which manufacturers invoice parts that are locally made as by any real increase in value added.

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BASIC STATISTICS table with columns for Area, Population, GNP, Per capita, Trade (1976), Imports, Exports, Imports from U.K., Exports to U.K., Trade (1977 to end Aug.), Imports from U.K., Exports to U.K., Currency: pesos.

Pressure

CONTINUED FROM PREVIOUS PAGE

more colourful or immediately appealing leader in South-East Asia. But inevitably his style of authoritarianism does bring with it the risks of sycophancy and of avoiding advice he might not want to hear. He made a bad blunder in establishing such a large sugar stockpile in the Philippines in 1975-76 and then holding on to it as world prices plummeted. He also misjudged the Americans in turning down Dr. Kissinger's offer of \$1bn. in "rent" over five years for the American bases of Clark Airfield and Subic Bay. Since then President Carter's administration has been having second thoughts as to whether the bases are really so necessary in the way that President Marcos himself wondered after the collapse of South Vietnam what point there was in being under the American umbrella. The issue has been further con-

At the same time President Marcos has been cultivating China and Vietnam—with whom he could be in dispute one day if oil should be found in the Spratly group of islands, which are a minefield of rival territorial claims. He has also made a pitch for recognition as a Third World leader, with the Philippines taking a significant role in the UNCTAD discussions over the "new economic order". This may seem over-ambitious for a country of the Philippines' size. But it is a sensible policy. The Philippines is something of a curiosity in South East Asia. Long under Spanish and American rule, predominantly Christian, not totally sure of its identity, it is the odd man out in a region whose main culture is Chinese and Malay. The more anchors it latches on to, the safer it will be.

Impetus A major impetus for growth last year, as it was in 1975, was the expansion of construction. Largely as a result of the building programme precipitated by last year's IMF conference in Manila, construction activity grew by 52 per cent. Certainly depressed urban wages would suggest a continuing drift from the countryside to the town and that the new jobs that have been created have made little impact on the massive size of the unemployed and underemployed labour. Those who have gained are the business and industrial community with in particular, a concentration of wealth around Manila and some of the regional centres. The numbers of the "better-off" are larger, but disparities in wealth have grown wider. Output in manufacturing has registered disappointing increases, reflecting the limited size of the domestic market and the absence of any surge in purchasing power. Industrialists have been slow to get into exporting, understandably perhaps given the easy glide that high tariff barriers provide them with at home—though this is beginning to change. Private investment has also been slack as the more obvious import substitution opportunities have been exhausted. Overall this represents a picture of a high cost industry working at low levels of capacity and unable to provide jobs or incomes in adequate proportion to the new entrants to the labour market. It is also a picture of increasing population pressure on the land with the richest areas already heavily exploited and the uplands in danger of erosion from hasty deforestation as farmers seek to extend their frontiers. These generalisations about the lopsided structure of the economy are born out by its performance over the past 18 months. In contrast, for instance, Malaysia's 11 per cent growth last year, the Philippines achieved just 6.3 per cent, and seems unlikely to meet its target of 7 per cent this year. A further encouraging sign is that the inflation rate, which was 33 per cent in 1974, was brought down to 6 per cent last year and only marginally rose to 7 per cent in the first six months. It is difficult, however, to reconcile this official figure with the Central Bank's reporting of a 26 per cent growth in the money supply in the first half and Government claims of a 7 per cent growth in GNP. A possible explanation is that the pace of inflation has in fact returned to a two-digit level. Thus with the balance of payments dictating the momentum of the economy, any shift in the trade account is of major importance. The Government is hopefully looking to an annual 18 per cent growth in exports to sustain industry's needs. But any major parting of the import bill through the discovery of domestic sources of oil would provide the opportunity for a restructuring of the economy. Whether that Philippines would take advantage of it is a moot point. What has now been officially accepted is that the import substitution of the 1950s and 1960s was a failure except in the skills it helped to create. It has left distortions of cost and price that are now difficult to remove without doing battle with the strong local and foreign interests that have politically backed President Marcos. Both the IMF and the World Bank have long pressed for a lowering of tariffs to encourage competition and diminish costs—but so far with little success. One exception may be the Government's present clumsy challenge to the tyre industry. What the Government has not decided is the future direction of its policy. President Marcos has called for a balanced agricultural and industrial development which is a way of avoiding an immediate choice. Beneath him there are a babble of voices pressing for advance in different directions. A powerful lobby would like to see a deepening of the present industrial structure. It argues for the construction of an integrated steel mill (as a cushion against the disruptions to supply that occurred in 1974), a copper smelter (on the dubious premise that the larger the downstream operation the greater the value added even in the depressed state of copper prices) and a major petrochemical complex. Parallel with this is pressure for the Philippines to embark more extensively on the manufacture of intermediate goods. A case in point would be the car and truck industry where the Government already has in hand the laboriously labelled Progressive Car Manufacturing Programme and the Progressive Truck Manufacturing Programme. The aim in both cases is to increase the proportion of locally manufactured content. In practice such increases are measured as much by the high nominal value at which manufacturers invoice parts that are locally made as by any real increase in value added.

Overcrowding

There is a great deal of overcrowding—14 companies are involved in the truck programme. High tariffs are needed to keep them in business. An extensive component industry would require further protection pushing up costs still higher. The only economic argument for it would be a major widening of the market. This the Government hopes to achieve through a system of what is called "directional preferential tariffs" worked out with its partners in ASEAN under which member states would agree to purchase complementary components from each other. The formula might provide the answer for the need for wider markets. It could just as easily extrapolate onto an ASEAN scale all the inefficiencies already present in the Philippines, Indonesia and Thailand. As against this move towards more intensive industrialisation, President Marcos entitled his budget this year as: "A budget for countryside development". The intention was to demonstrate the Government's commitment to rural programmes, though in practice it is far more an attempt at decentralisation. After the heavy concentration of spending in the Manila area, such a shift is welcome. More regional responsibility for funds is essential in a country strung out across over 7,000 islands. But the Government has also spelled out its belief in bigger allocations for the rural areas

David House

BNP in Asia

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Power centred firmly in Manila

IT IS a big leap between the colonial grandeur of the Spanish monarchy and the easy-going ways of the White House. Today, President Marcos, a product of a Hispano-American culture that is unique in South East Asia, somehow manages to achieve it. The Malacanang Palace in Manila, with its chandeliers and gilt furniture, could as well be the home of a Spanish king as of President Marcos. The uniformed guards, the courtiers moving noiselessly along thick piled carpets, the strict observance of protocol leave a visitor in no doubt that he is meant to be impressed by the man's importance. And yet President Marcos himself talks with beguiling informality, phrasing his remarks as though he were thinking aloud and ready to share his closest secrets. The style is also characteristic of his public appearances. There is both a suggestion of majesty and at the same time the unexpected off-the-cuff humorous touch that turns a solemn speech into a fireside chat. Filipinos like theatre in their politics and President Marcos gives them plenty of it. Since declaring martial law in 1972—and thereby avoiding a potential election defeat at the hands of Benigno Aquino, his now imprisoned opponent, President Marcos has in practice been accountable only to himself. The closest there is to a national assembly is the Batasang Bayan, a wholly nominated advisory council that President Marcos periodically summons to discuss such issues as his proposed renunciation of the Philippines' claim to Sabah or the advisability of holding elections. Debates, which are mostly televised, are an attempt at political education. They can also be a useful device for suggesting that there is opposition to policies which President Marcos would like to defer but knows are popular. Thus one of the surprises of the debate in August in the Batasang Bayan was the number of speakers who rose to tell the President that in calling for elections he was putting at risk the achievements of the New Society and paving the way for a return of the anarchy before martial law. Another means by which the President seeks public support is through referenda or plebiscites, of which there have been a number since 1972. But with martial law in force there is only limited discussion of the issues at stake. The questions are carefully posed to elicit the answers the Government wants—as in this year's plebiscite on autonomy in the south. And President Marcos does not necessarily feel bound by the results. It was only a few years ago that voters polled in favour of a postponement of the elections until 1980 that President Marcos now says he will introduce.

Handling The pivot of President Marcos's political management is his personal handling of the "oligarchs"—the political barons who dominated the country before 1972. They have lost their private armies, and their power to mount any challenge to the President. But with only a few exceptions—the Osmeña family, for instance, or the Lopez's—have they lost their wealth. Most have been co-opted into the New Society: they grumble about it, but they are secure now that when the political vendettas of the past could strip them and their followers of life and pocket. To counterbalance their influence President Marcos and his wife have used their patronage to help establish or strengthen new empires. Thus have prospered the Disini family (banking, merchandising, insurance and manufacturing); the Martella (steel production, hotels); and the Silvicos (automobile assembly and distribution, refrigerator manufacture). Outside this circle, however, other companies have also done well from the stability and orderliness that has come from President Marcos's rule. Gone are the days when politicians spent for times to win seats in the assembly and then immediately sought to recoup them through a licence to build a cement plant. As in his dealings with the "oligarchs," so in his management of the Government, President Marcos prefers to summon ministers individually. Cabinet meetings are rare. Among those on whose advice he relies the most are Roberto Benedicto, a former classmate and now doubling as ambassador to Japan and head of the newly-founded Sugar Commission which is reorganising the industry; Juan Enrique Ponce, the Defence Secretary; and Cesar Virata, the Secretary for Finance. Thus power is firmly centred in the Malacanang. Indicative of how firmly is the regularity with which provincial governors come to Manila to lobby their case. In the background, and the ultimate support for President Marcos's regime, is the army. It has multiplied its strength both to ward off challengers and to handle particular threats—most notably the secessionist movement in Mindanao and the guerilla attacks of the Communist New People's Army. The military's major external role is in guarding offshore oil drilling in the South China Sea from its much enlarged base on West Palawan. The army is not, however, the tough repressive organisation that it was in the early days of martial law. Most of the 60,000 whom Ponce Enrique says have been arrested since 1972 were detained in the early years. There is no atmosphere of terror in the Philippines.

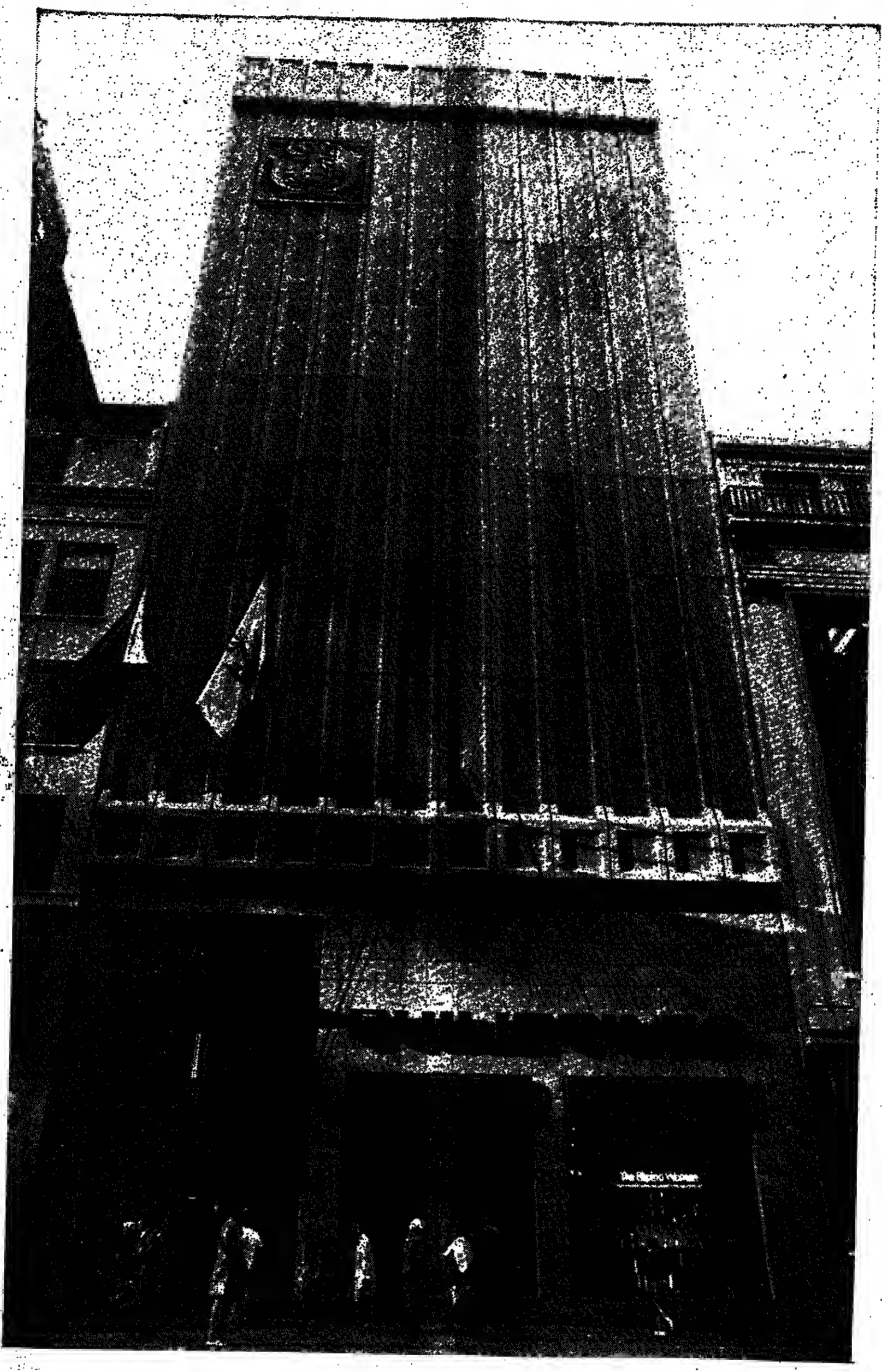
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The Government also has other means of keeping the Church in check. Apart from the threat of legalising divorce or abortion, it has the power to tax schools or rule on the fees. With the church school the best in the country and church anxious to maintain influence through education this is a powerful weapon persuading it to toe the line. Though 60 this year President Marcos is fit and keeps him that way. His health is not likely to be a reason for his having shed powers in the years ahead. But it remains a moot point whether it is sensible policy to run such a centralised system in a country scattered across more than 7,000 islands. It is hoped that the shift in the budget this year towards decentralisation in the allocation of funds will be followed by a wider distribution of power both within the Government and to the regions. Manila, for too long dominated by wealth and the politics of wealth, and the politics of wealth, and the politics of wealth.

D.

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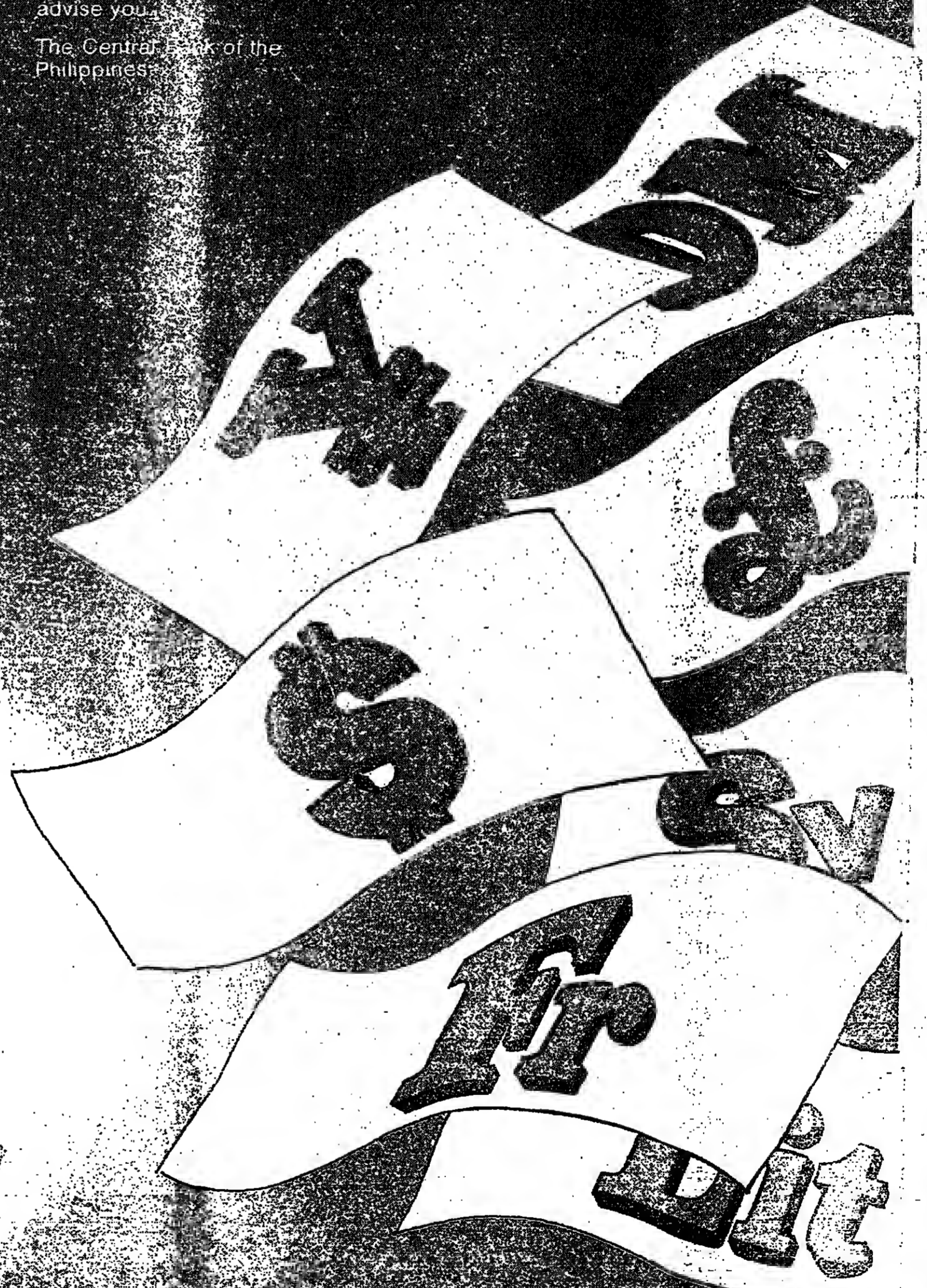
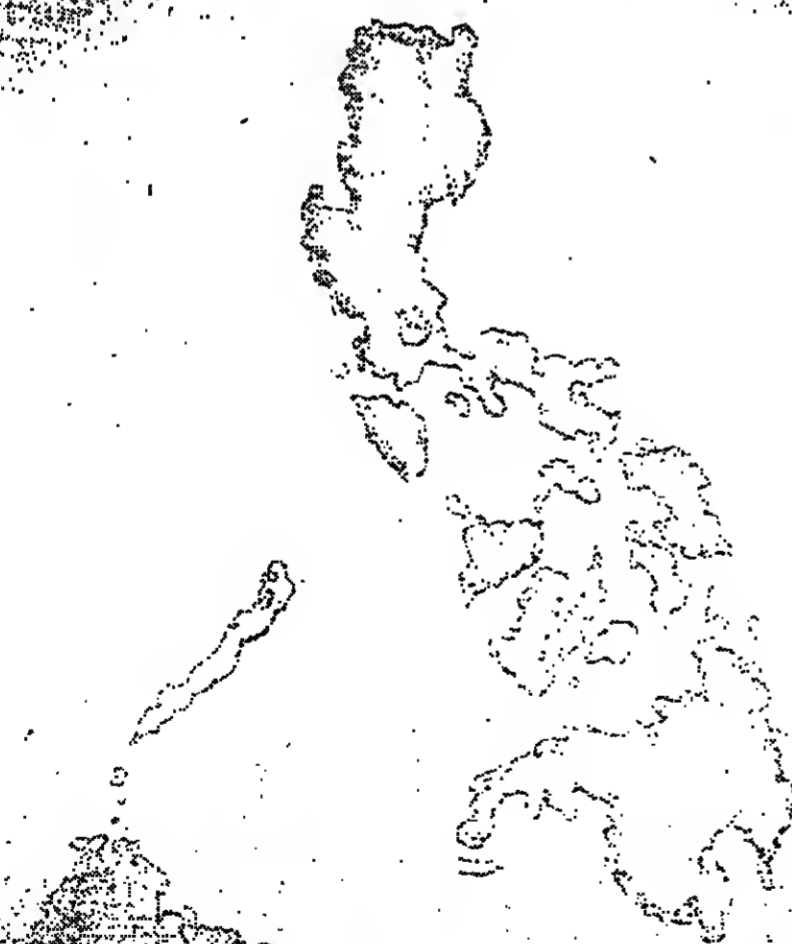
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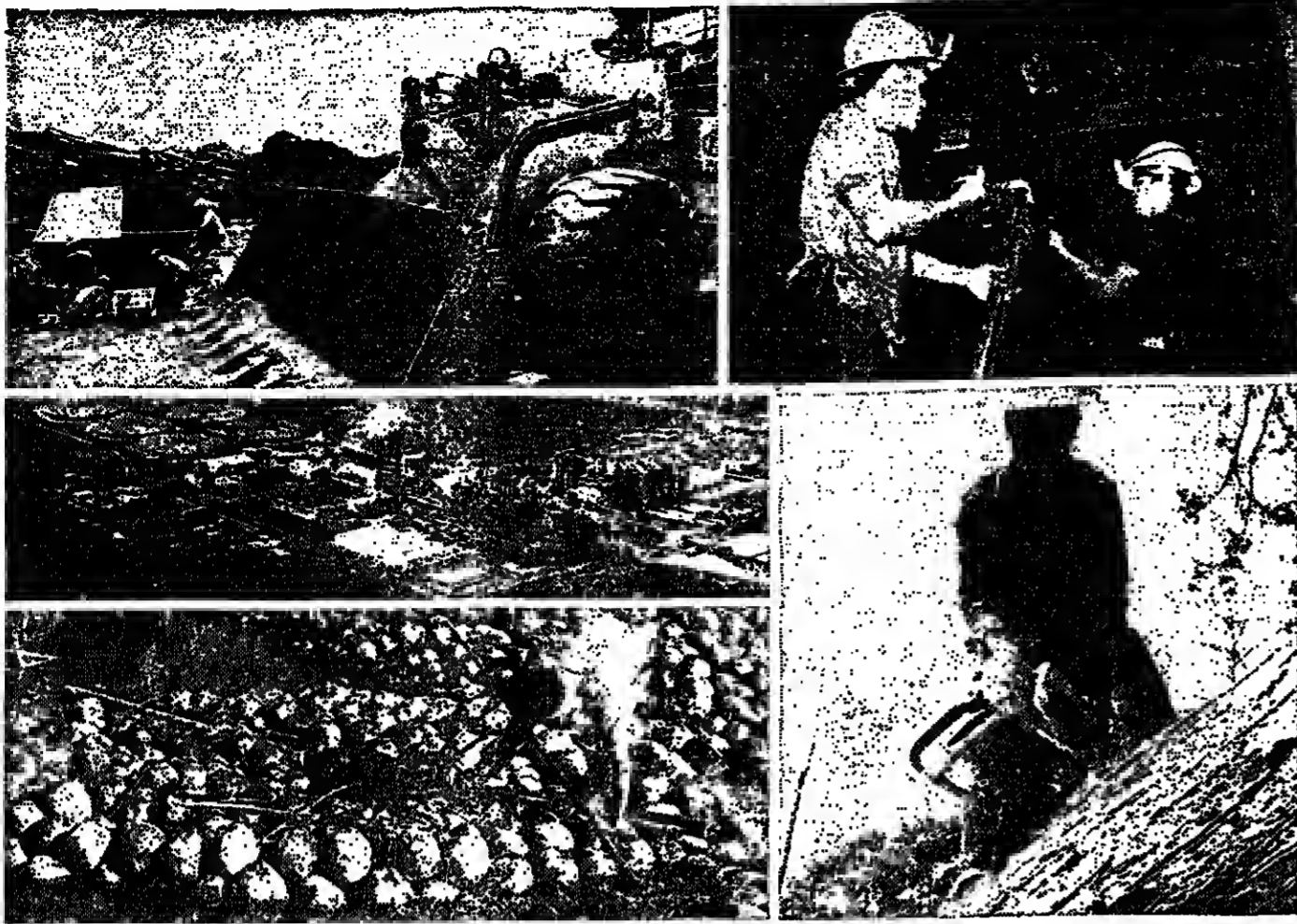
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United Coconut Planters Bank powers Philippine industries to growth and development

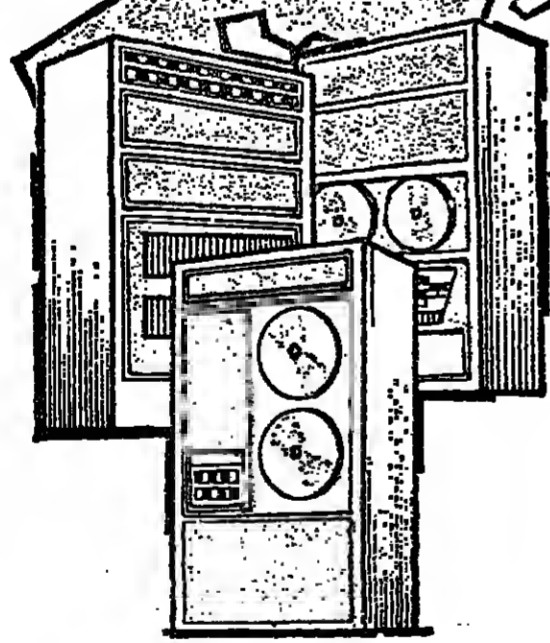
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Banks come under close scrutiny

THE FOCUS of Central Bank moves to restructure the financial system has been concentrated on commercial banks and merchant banks (better known here as investment houses or quasi-banks). Official thinking is that it is in this area that the need for structural changes is most urgent, for at least four reasons.

One is that growth has been more in the number of banking units than in fresh funds. Second is that in many cases ownership is held by families or closed groups, and so is management. The third reason, following from the second, is that the flow of banks loans and investments has been increasingly towards related interests. And the fourth reason, more true of merchant banks than commercial banks, is that there is too much concentration on money market operations.

All this explains the stream of circulars and memoranda from the Central Bank telling the banks what to do and what not to do. In the past two years or so, the monetary authorities have imposed ceilings on how much a commercial bank or merchant bank can lend to its own directors, officers and stockholders, or to relatives of such directors, officers and stockholders, or to the banking institution's own affiliates and subsidiaries.

The authorities have prescribed minimum qualifications for those who can become directors or officers of a commercial or merchant bank. They have also required directors of every commercial bank to commission an annual operations/management audit of the bank to be undertaken jointly by internal and external auditors instead of just the former. They have likewise required every merchant bank to segregate the records of all its deposit substitute holdings and other money market securities instead of lumping them together under "bills payable."

On the other hand, deposits in the commercial banking system (23 private domestic banks, four foreign banks, branches and two Government banks) rose from 27.3bn. pesos at end-March to 29.9bn. at the end of June this year. In that period, deposits from had loans institutions (53 stock savings and loans associations, 34 private development banks and ten savings banks), deposits climbed by 43.7 per cent to 2.8bn. pesos. And in rural banks (totaling 309), deposits at the second quarter posted an increase of 56.1m. pesos over the first quarter level. Again in all three cases, the deposit inflow accelerated in June.

With their bulging deposits, the banking system was able to lend more. Of total domestic credits of 43.8bn. pesos outstanding at the end of June, 38.6bn. came from deposit money banks, 5.4bn. from the Central Bank, representing an increase of 27.4m. pesos for the former, and a decrease of 388m. for the latter, compared with the corresponding figures to the end of May. By end-June, 34.6bn. pesos went to the private or business sector, 9.2bn. to the public Government sector, for an expansion of 2m. pesos for the former, but a contraction of 66m. for the latter.

But while the restructuring moves by the Central Bank have produced bank mergers, capital build-up, market placement-to-bank deposit shifts and other results, it is still hard to establish at this point whether they have influenced the direction of the flow of bank loans and investment from related interests to unrelated ones. Last December, one commercial bank (then known as General Bank and Trust Company and now Allied Banking Corporation) suffered a "run," had to be rescued by the Central Bank, then was temporarily closed, mainly because of over-exposure in its merchant-banking affiliate (FIL Capital Development Corporation) which earlier suspended operation principally owing to over-exposure in real estate and other businesses. At the time, both institutions were higher capitalised than many of their counterparts in commercial and merchant banking.

Monetary officials are thus having second thoughts about compulsory recapitalisation alone as the approach towards what Central Bank governor Gregorio Licerio has set as his target, namely a banking system made up of fewer but bigger and more stable banks. A study made by a Central Bank committee tends to show that compared with smaller banks, bigger banks are more efficient in the use of their resources, more stable in their lending operations, have a lower incidence of losses from bad loans and a higher rate of return on portfolio holdings. Just the same, some committee members say that size is not the only stability factor and that maybe CB ought to be concerned more with the extent of ownership and the kind of management in banking institutions.

Besides, with or without the Central Bank telling them what to do, such institutions have to raise or are raising additional funds. As St. Andres Castillo of Metropolitan Bank and Trust Co. puts it, "No directive is necessary" because the banks "will do it by themselves." A capital build-up will come

generally as a result of market factors. For example, the margin between buying and selling rates in foreign exchange transactions of banks. The move by Finance Secretary Cesar Virata and Economic Secretary - General to narrow the different maximum loan interest rates between maximum deposit interest rates of banks and other financial institutions. In the process, the profit squeeze is offset only by squeezing other volume of business in pesos or in foreign currency, and such volume is handled only by banks.

There are other market factors. Sixteen foreign banks have been authorized by the Central Bank to operate offshore units (OBU) in the country side with foreign currency deposit units (FCU) of domestic banks. The four foreign banks which have opted for the latter facility. This is in line with the policy of making a major financial centre in part of the world. FCUOS are divided into two limited units whose corporate banks have paid up capital of less than 150m. pesos; and expanded units or those whose parent banks have paid up capital of over 150m. pesos.

OBU have already started operations. They are under certain conditions, but they have raised offshore funds. The market division is something like wholesale foreign currency banking for OBU and retail foreign currency banking for FCUOS and their parent banks. With the recently announced new guidelines on peso borrowings of foreign firms doing business in the Philippines, it is generally expected that most of the business of multinational corporations will go to OBU, and to limit FCUOS, if any, to local banks. The last-named have to be loan syndicates among themselves or with merchant banks, whose role on the market is being phased down anyway and which may now look to other areas of financial activity.

Market factors take care of the problem of growth banks. Combination with more dispersed ownership structure and a reorganised management will still be the job of Bank merger-or there is the banking or not is over-regulatory oppressive taxation.

LEONCO P. CONTINUED ON NEXT PAGE

The stock market

THE SECURITIES Exchange Commission (SEC) would like to see an expansion of the list of issues traded on the stock market. It also wants the listing of more commercial and industrial enterprises to offset the dominance of the mine and oil sector. The Commission has time and again emphasised these policy preferences. The most recent occasion was at a Makati Rotary Club meeting where acting SEC chairman Angel Limjoco Jr. was the speaker.

Data cited by Mr. Limjoco tend to show that too few firms are seeking a listing on the market, that most of those listed are small firms, and that the market remains predominantly mining and oil orientated, with commercial and industrial issues becoming more and more of a poor relation. In June this year, there was only 190 in the list, representing less than one-third of the 602 firms registered with and authorised by the SEC to make public offerings; and also less than one-fifth of the top 1,000 corporations of the country. Only about nine out of every 100 listed firms had subscribed capital of 50m. pesos (roughly \$6.40m.) or more. The share of the oil sector in total stock business jumped from 1.6 per cent in 1987 to 57 per cent in 1978, while that of the commercial-industrial section dived from 30 to 5 per cent and that of the mining section declined from 65.4 to 48 per cent.

Chairman Limjoco said the securities industry should try to encourage investors "who are willing to use their money to foster economic development and, at the same time, share in the eventual personal rewards that are certain to come." Mr. Limjoco urged investors to concentrate their buying on blue chips rather than speculative stocks.

Official concern over "gambling" in stocks is understandable. Mr. Norberto Katigbak has shown that the market is attracting only a few issues, and that some if not many of those in the list ought not to be there at all. Of the 184 listed in the middle of last year, ten had been inactive for a long time. Only 59 were in the top 1,000 corporations, only 19 in the top 100, only three in the top ten. Most were speculative enterprises, or enterprises not paying dividends. Some were in the SEC list of "ghost mines" or mining companies with no worthwhile mining properties or whose properties were the subject of court litigation, and on which no development was being done.

The situation is confused by what is antiquated trading. As described by the Manila, Metropolitan stock exchange operate on the auction-type system, quires traders to board or on the particular issue, when volume is activity is very in the auction-type physical barrier operation. Their moves towards procedures, one of which is the form of an "e" In view, however requirements for execution of order lump sum trading has not been of although it is somewhat traffic jam during days.

Trading could be improved by computerised market operations. The establishment of a house for all the proposals along the line being studied. There has been some merging of the stock but what the Commission seems to have in mind is integration of companies, giving them access to integration of

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High hopes for oil and minerals

IL DRILLING by a consortium of local petroleum exploration concession holders (PEC) and led by an American independent, Cities Service International, has been reported by two "strikes" in the last 17 months. The first, in March last year, involved an exploratory well, Nido-1, located in the Nido complex off Palawan in the China Sea west of the central Philippines. The second, in July this year, was made during exploratory drilling nearby and named South Nido-1. A further well, Guntao-1, is being drilled by the same consortium not far away. Another consortium of local PEC members and led by Amoco is drilling its own exploratory well, Nido-2, in Onshore, in Cebu and in the Visayas, San Miguel 1 has just been added by an all-Filipino group of companies. Also on the agenda this time in Isabela province in the northern part of Luzon Island, Reina Grande 1 is being drilled by a State-owned Philippine National Oil Exploration Corporation.

While the oil deposits of Nido-1 and South Nido-1 have not yet been officially quantified and the specifics of a quality are not yet available, they are being rated by the Government's Energy Development Board (EDB) as commercial discoveries—and accepted as such in the stock market. It is said that with the two wells, the Philippines is only about three years away from joining the ranks of oil producers, based on known time gap between discovery and actual exploitation of fossil fuel deposits, and using availability of re-ferred funding. It is in the latter that some hitches seem to have developed. The first indication of this raised its share to 65 per cent.

Cities Service during a recent Manila visit. He expressed fears that the oil search here might run into serious difficulties, saying that the combined budget of American firms for drilling and related other activities in Asia was no more than \$90m per annum and that there was very keen competition for this relatively small amount among various fund users. He estimated that the Philippines would need at least \$40m yearly just to maintain the current phase of the oil search offshore and onshore.

Even for the Government, however, there are certain constraints, including those on "strikes" at Nido-1. The Board has since then laid down the rule that in areas where no discovery has yet been made, its share is 60 per cent in the first strike—it is even amenable to the idea of reducing this to a still unspecified percentage. But in areas where a discovery has been made, its share in subsequent strikes will be raised to 65 per cent.

From what is known at this point, a service contract guarantees the Energy Development Board on behalf of the Government no less than 60 per cent of production in an oil well. It also requires the service contractor, usually a foreign company, to split the 40 per cent with concession holders, all of them local companies. In most cases, it is the service contractor which shoulders most of the drilling costs, the concessionaires being generally carried free.

As it has turned out, EDB raised its share to 65 per cent. The second as production share.

The site of the smelter has already been chosen. It will be set up in San Juan town in Batangas, some four or five hours by car south of Manila. The equity split has already been decided: 34.5 per cent for the government; 35.7 per cent for a consortium of 11 local mining companies; 30 per cent for foreign investors, preferably suppliers of custom smelting machinery or buyers/distributors of custom smelter products. The consortium includes the "big five" copper producers, namely, Atlas Consolidated Mining and Development, Lepanto Consolidated Mining, Marcopper Mining, Mainduque Mining and Industrial and Philex Mining, and six small producers, Acocje Mining, Baguio Gold Mining (whose Sto Nino mine is a copper producer), Black Mountain, CDCP Mining, Consolidated Mines and Western Minolco.

The first cost estimate was between \$80m and \$100m. This will have to be revised, as a result of inflation. Serious negotiations over financing have not yet begun. But any borrowings will have to be reconciled with the revised external credit budget agreed upon between CB and IMF.

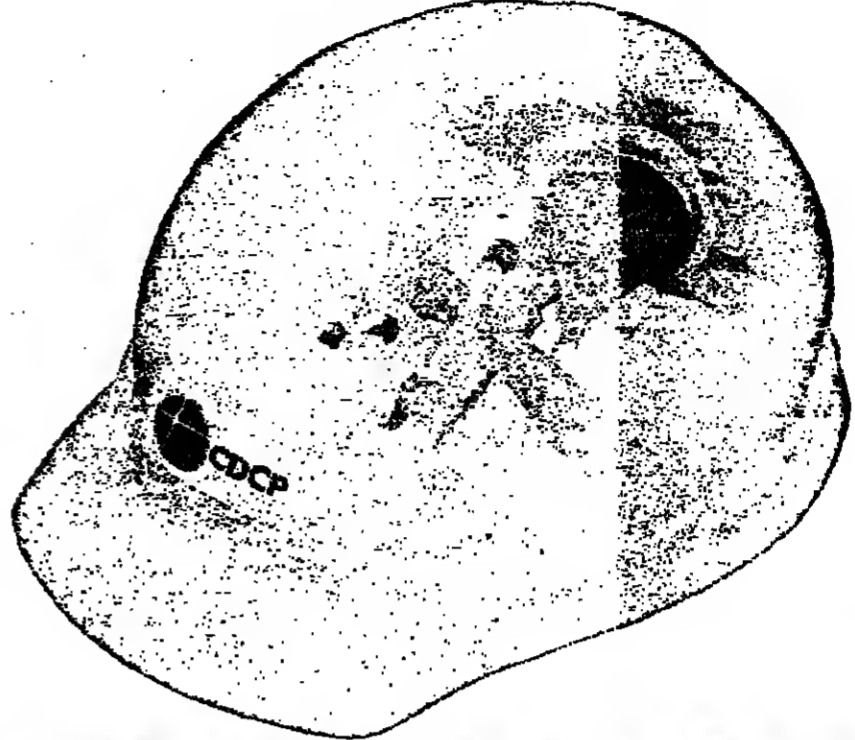
At Marcos with his wife Imelda during festivities to celebrate his 60th birthday in his home town of Batac.

Continued from previous page

SEC has now set minimum and maximum price fluctuation bands intended to prevent wild ups and downs unless there are "acceptable" justifications. It has laid down new rules on uniform listing situation where one stock is listed on the big board of one exchange and on the small board of another exchange. In co-operation with the Bureau of Mines, the SEC has started to ferret out "ghost mines." Recently, 16 such mines were required to "show cause" why their registration papers should be cancelled. The Commission has also given "inactive" a deadline to show some activity, or else be removed from the trading list. There have been some delistings, the most recent ones being shares of stock of two sugar mills, one mining company, one insurance firm and one steel mill.

However, all the moves of the SEC have so far not yet brought about enough additional market listings, nor a change in the market bias which still favours oils and mines at the expense of commercials and industrials. In the first seven months this year, the value of transactions at the Makati stock exchange totalled 551m pesos, of which 496m, or 90 per cent, was accounted for by the mining and oil sections, and 54.68m, or 10 per cent, by the commercial-industrial section. Activity in oils was particularly brisk in July because of encouraging drill site news that month. In June, oil shares worth 66.3m pesos changed hands. The following month, sales expanded to 32.6m pesos in value. This affected not only commercial-industrial but mines as well. In this

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At Marcos with his wife Imelda during festivities to celebrate his 60th birthday in his home town of Batac.

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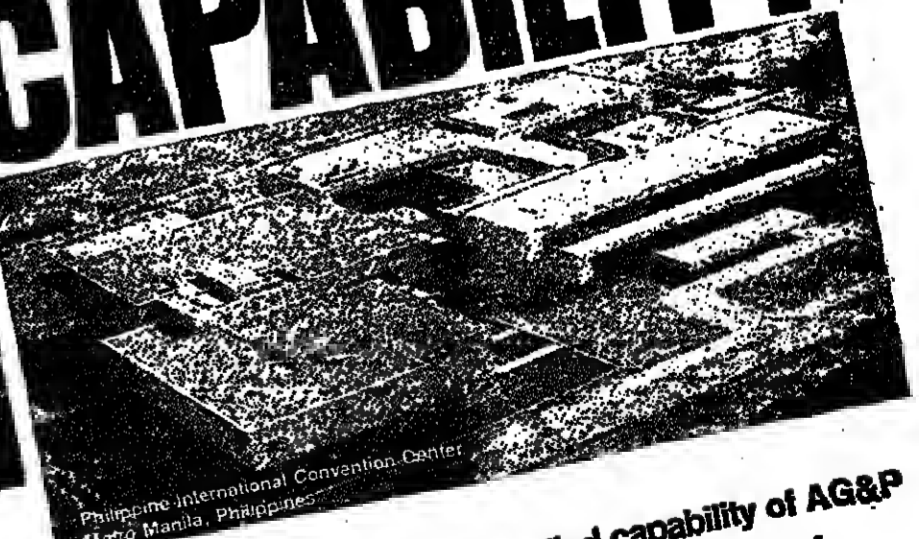
case of the latter, value dropped from 29.5m to 19.1m pesos. A similar trend was noted at the Manila Stock Exchange. Oil trading picked up starting in June when it registered 57.9m pesos worth of business. This climbed to 66.4m pesos in July. As for mines, transactions were valued at 30.4m pesos in June, then 22.5m pesos in July. The seven-month total for the city exchange reached 332.9m pesos. As in the suburban exchange, the buying favourites were again oils and mines. (Being the newest and smallest, the metropolitan exchange has had only minimal trading.)

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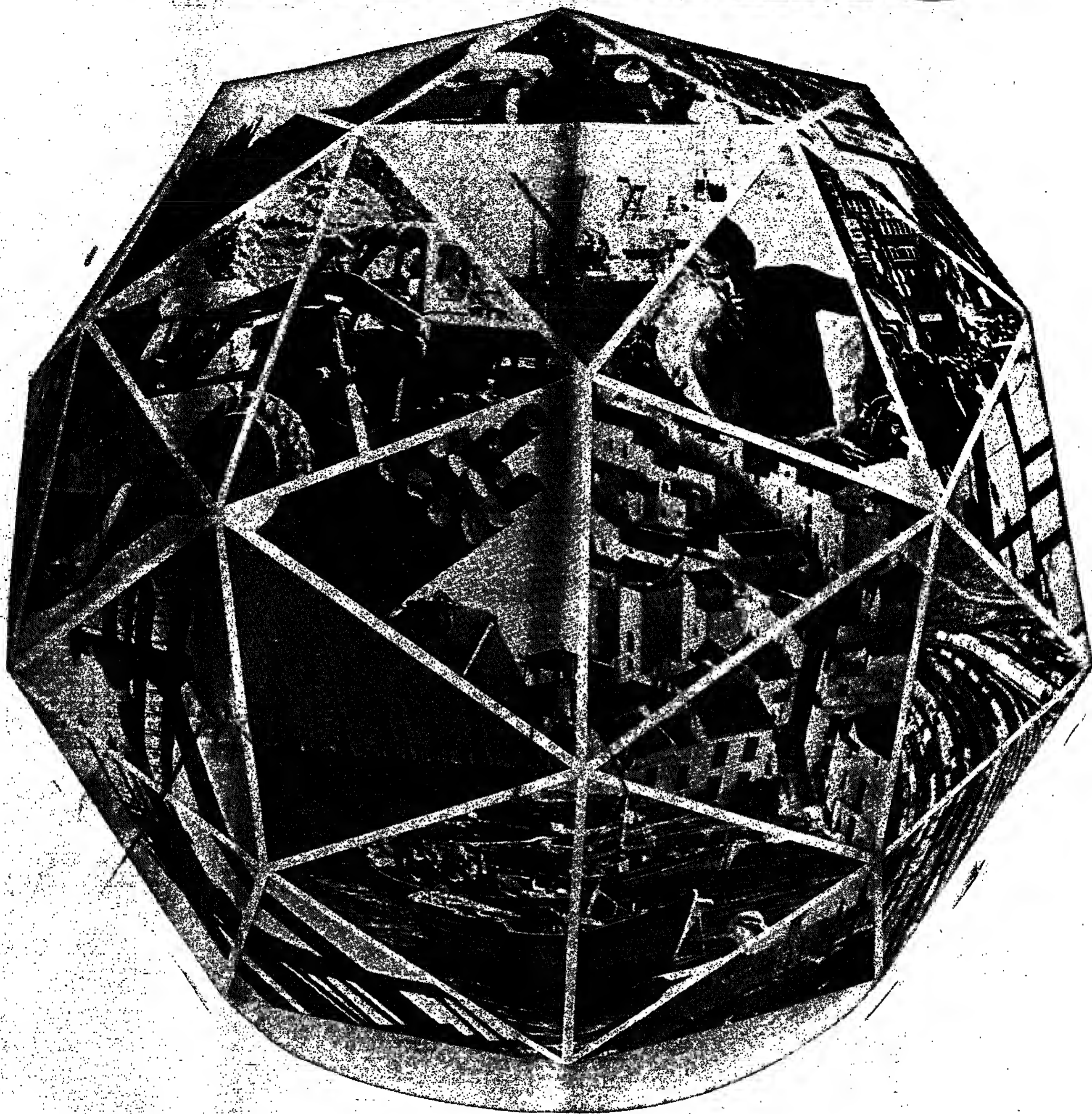
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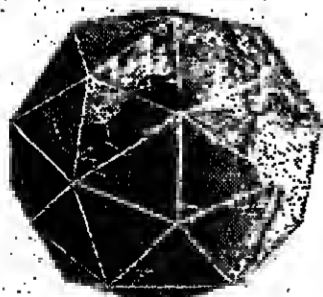


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THE PHILIPPINES X

Most of the Philippines' export crops have done well in recent years, although in some areas Government pricing policies have come in for criticism. On this page and opposite J. M. M. Suarez examines the principal sectors.

Major commodities

Coconuts



The Philippines land reform programme has not been moving as fast as was hoped. Better irrigation, higher grain production and the development of export crops are the main planks of current policy.

UNLIKE THE Philippines' other major export commodities, which have been suffering sharp declines in earnings during the past few years, coconuts have done well, dislodging sugar as the number one foreign exchange earner in 1976 and so far this year. The United Coconut Association of the Philippines reports that coconut exports from January to August this year amounted to \$502m, an increase of 43 per cent over the \$350m recorded during the same period in 1976. Prices, however, began to fall in May and production for the year is likely to be lower than 1976.

Coconut oil accounted for 58 per cent of total coconut export earnings in the first eight months this year, registering \$291m, up 59 per cent, although volume declined by 16 per cent to 497,469 tonnes. Copra exports earned \$119m, a 4 per cent increase in value. The volume of Copra exports also went down by 51 per cent to 318,589 tonnes. Copra meal exports totalled 258,746 tonnes, fetching \$35.7m, while desiccated coconut recorded earnings of \$56m.

Traditional markets—the U.S. and Europe—purchased 80 per cent of total Philippine coconut exports, with the other 20 per cent going to new markets such as the Soviet Union and China. With a total copra area of 2.3m hectares, making it the world's largest producer, the Philippines produced a total of 2.74m tonnes in copra terms last year against 2.66m tonnes in 1975. Yield per palm has also improved to 35 nuts against the previous 31, and the room for further improvement is approach.

Agriculture

PHILIPPINE RICE production for the 1976-77 crop year ended last July is expected to register an increase of less than 1 per cent over the previous year's record 3.8m tonnes, reflecting the credit snags that have hit the country's "Masagana 99" rice production programme. As in 1976 the Department of Agriculture's main pre-occupation this year and next will be to find a solution to the problem of shrinking credit coverage for rice farmers.

It is believed that during the last crop year only 200,000 farmers were covered by the programme's non-collateral loan system, as against 430,000 the previous year; that in turn showed a 50 per cent decline from 855,000 borrowers during 1974-75. This raises the question of whether the Philippines can remain self-sufficient in rice after the next crop.

Despite this year's minimal growth rate, which compares with the 9 per cent recorded in 1975-76 when the Philippines attained self-sufficiency, Agriculture Secretary Arturo Tanco Jr. says there should still be enough surplus to tide the country over the lean months of July, August and September, thanks to a total of 893,000 tonnes of carry-over stocks from previous good years.

The credit snags developed following defaults by farmers on repayments which forced the rural banks to tighten up on loans. Unless the situation is remedied soon, it is feared that farmers, while continuing to plant, may not be able to afford the necessary amount of inputs. This would inevitably bring production even lower.

St. Tanco suspects that the non-availability of finance was a major factor also in the 3.3 per cent decline in acreage which, if planted, would have produced enough additional rice to bring the growth rate within the 4 and 6 per cent annual target. The reduced growth rate is also partly attributed to pests in central Luzon, the country's major rice producing area.

Last January President Marcos ordered the adoption of measures aimed at increasing repayments—the overall repayment rate for such loans since 1973 has been only 78 per cent—and improving the liquidity of the rural banks and other lending institutions participating in the programme. With the banks thus assured of adequate protection against defaults, they may now make credit available to other farmers who, although not defaulters themselves, nevertheless suffered from the reduced availability of funds. How effective these measures will be remains to be seen, but the Department of Agriculture is optimistic.

Land reform has also not been moving as fast as originally envisaged, having run into some resistance from certain landowners as well as being hampered by lack of surveyors and delays in land valuation, according to sources at the Department of Agrarian Reform. So far a total of 246,372 farmers have been issued certificates of land transfer involving 427,301 hectares of land. Another 135,650 farmers have yet

to receive their certificates and judging from present performance it is doubtful that this will be completed by the end of the year as scheduled. Aside from the distribution of certificates, after which a farmer is considered an amortising landowner, 87,300 lessees are programmed to have written contracts with landowners by the end of 1977. The total area subject to land reform, initially confined to rice and corn lands, is 1.4m hectares.

Meanwhile the main thrust of the country's agricultural policy continues to be in the expansion of irrigation, improvement of seed grain production to boost the livestock industry (still inadequate to meet demand) and development of traditional and non-traditional agricultural crops such as cotton with a view to increasing agricultural export earnings.

In order to increase crop exports the Agriculture Department and the Board of Investment have drawn up an agribusiness investment priorities plan containing a package of incentives aimed at attracting investments from industrial concerns. The package includes not only tax holidays but also exemption from import duties on breeding stock and plant genetic materials. President Marcos has also ordered the establishment of a crop and livestock insurance programme. The list of agribusiness priority areas still has to be drawn up for approval by the National Economic Development Authority.

Of the Philippines' 8.5m pesos.

Bananas

THE PHILIPPINE banana export industry has come a long way since its inception in 1968. It is now one of the country's single top export earners. From only \$10,600 from a total shipment of a mere 357,787 kg. in 1968, both value and volume of Philippine banana exports have been leaping steadily each year and totalled \$5.87m and 857m kg, respectively, in 1976.

Figures issued by the Central Bank put export receipts from bananas during the first seven months of 1977 at \$62.30m, against \$53.07m during the same period last year, from a total shipment of 500m kg. Also, in just four years the Philippines dislodged Taiwan as Asia's leading banana producer and as Japan's second largest supplier after Ecuador in 1972. The next year, the Philippines dislodged Ecuador as the largest supplier of Japan, the world's biggest market for the fruit. The Philippines has continued to enjoy that position since.

The fast growth of the industry is due to favourable local conditions and the adoption of improved techniques \$41.8m. From January to July and procurement of modern banana processing machines. Although acreage has remained practically unchanged, output has been steadily increasing. In 1975, the country's pineapple production was placed at around enabling it to make shipments 269,534 tonnes.

As a result of the continuing fall in world fertiliser prices, local prices are now set at import priority levels, except for those which are home-produced. Government subsidies will continue to be required, however, and the amount during 1977 is estimated at 133m pesos (about \$17.7m), 36 per cent lower than the 1976 subsidy of 207m pesos.

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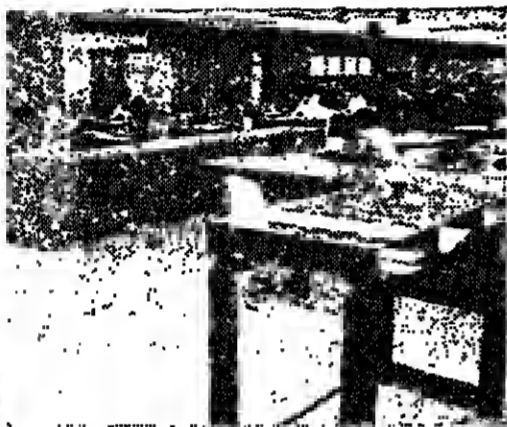
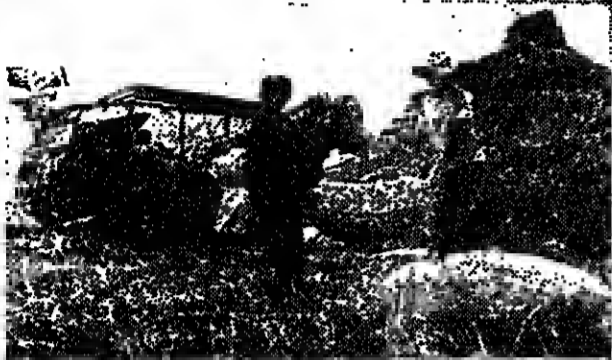
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THE PHILIPPINES XI

Sugar

THE PHILIPPINE Sugar Commission (Philsuc), set out last June on the task of straightening out the country's sugar industry. This has given new hopes to cane planters and millers, but just the same, they are keeping their fingers crossed for the future.

Responsible for these mixed feelings is the fact that while the Commission's membership includes representatives from the industry itself, producers are not sure of how effective their voice will be in the face of President Ferdinand Marcos's continuing strongman regime. Producers have an axe to grind against the Government for its pricing policy during the 1973-1976 slump and for the way it held on to a mounting sugar surplus just before that.

That the Government should want to exercise more control over the industry is understandable. For apart from employing about 453,000 workers, sugar has always been the country's top foreign exchange earner until last year and therefore greatly affects the Philippines' balance of payments. In 1974, during the sugar boom, export earnings from sugar reached a record 737.4m, or 27 per cent of total export receipts that year. Last year, the figure was only 429.9m, compared to 580.7m in 1975.

Philsuc was formed, trading in sugar was presidential decree, the main solely of the Government-owned - Philippine Exchange Company (Philex), subsidiary of the Philippine National Bank. The Philex merged with the Philippine Sugar Institute and the Sugar Quota Administration have been absorbed by Philsuc, which is headed by Mr. Roberto Benedicto, a close friend of Mr. Marcos from their college days, and a former Ambassador to Japan.

60-year-old Mr. Benedicto

to himself has extensive experience in sugar as well as in shipping and finance. It is relieved of his diplomatic ties precisely to be full-time sugar commissioner. Previously he served Mr. Marcos only in an advisory capacity. Under the decree forming the Philsuc, the new sugar body is not only to handle sugar and including the fixing of export and ceiling prices, but is also charged with laying down policies covering all phases of the industry.

Of Mr. Benedicto's six associate commissioners, four have far been named. Two come from the Government and the other two from the private sector, one representing the planters and the other the millers. Mr. Marcos has indicated that another private sector representative will be appointed from the ranks of the sugar technologists. Although the Commission has more time to settle down, ready both Mr. Marcos and Mr. Benedicto have set the tone of the Government's future sugar policy. Mr. Marcos has announced that as part of his Government's rationalisation programme for sugar, a decrease in production is envisaged, with Mr. Benedicto warning "will not tolerate any restrictionism to hamper our operations."

Sugar production during the 5-76 season was 2.8m. tonnes, a season production is expected to fall to 2.5m. tonnes. A number of planters are not happy about this new development. One very prominent planter, for example, agrees with Government on the need to cut costs but says he will not along with any production back.

The same source conceded that cane hectareage had to be reduced but without necessarily having to cut down on production. Of the some 380,000 hectares planted to cane, one-third is considered marginal and should be growing crops other than sugar cane.

President Marcos has in the meantime already taken measures to placate sugar producers who feel that the Philex, earlier reported by Government to be operating at tremendous losses, had realised net profits last year (even while the market was depressed) of about \$4.2m.

Thus, in the face of pressure in the industry for the restoration to the private sector of sugar trading in protest against the Philex pricing policy, Mr. Marcos has directed that Philex to forgo profits in its operations and increase the price it pays to producers.

The problem that confronts the Philippines' sugar industry is one of inefficiency in practically all levels. Production, in terms of cane yield and sugar recovery, has been erratic. The average yield per hectare is only about 80 piculs. In the central Philippine Island of Negros, the heart of the sugar industry, the average yield per hectare is 100-piculs, with some farms producing 240. But this is very rare. The small farms, even in negros, have much smaller yields and 45 per cent of sugar plantations are less than five hectares in size. A report on how to reduce costs presented at a recent convention of sugar technologists said that in many instances all that was needed was sheer common sense and a little more knowledge of botany.

Both government and the industry could in the past afford the added cost of inefficiency owing to the lucrative prices in the American market. The picture, however, changed with the ending in 1974 of the Philex-American trade treaty and the repeal of the U.S. Sugar Act, which forced the Philippines to look for new buyers and thus forced them to contend with the vagaries of the world market.

Indeed, the Philippines performed well during its first year in the world market, with exports receipts from sugar shipping up to \$737m. But at the same time efforts to solve the industry's external problems were once again postponed as coverage, including even marginal lands, increased with official encouragement and new mills were put up.

Then came the restrictions of 1975. The irony, according to some producers who say they holding back stocks contributed a lot to the high sugar prices, was that the Philex was unable to dispose of its already rotting stocks in time. According to these sources, Philex refused to sell even when prices stayed to slide from a high of 65 cents a pound in the hope that prices would climb again. They did not and Philex had no alternative but to sell at prices below production cost. The same producers refuse to speculate on who was responsible for the stubborn manner by which Philex held on to the sugar stockpile but say all this was done against the advice of Mr. Benedicto, "who listens to reason and knows the business." Others in the industry, especially the small, hard-bit planters do not believe this completely.

The exact size of the present stockpile is not known. There are some who have expressed fears the Government may again be tempted to withhold sugar sales in anticipation of better prices expected to be agreed at the forthcoming International Sugar Conference in Geneva. Central Bank figures show actual export receipts for July



The Philippines sugar industry is suffering from a number of internal problems which are affecting its efficiency. However, it is still one of the country's main export earners.

mills which were put up in places where cane farming still had to be developed. In some cases, transport is inadequate. There are obsolete methods and equipment used and lack of storage facilities, which all make for lower sugar recovery. Then, there are also the problems of selecting the proper cane varieties, land preparation, planting, fertilizer application, weed control, harvesting and transportation, which Philex headed by Mr. Antonio Florendo, a prominent Filipino businessman with close links to Mr. Marcos.

Production costs at present are estimated at around 10 cents per pound of sugar. According to industry sources, this can be brought down by 15 per cent, in two or three years provided serious efforts are made in this direction and provided crop loans from the Government are utilised to the maximum.

There is also an imbalance in the present complement of milling facilities. In the 1974-1975 crop year, for instance, of the total 514,000 hectares planted to cane, only the crop from 473,000 hectares was actually milled, partly because of the inaccessibility of some

long-term contracts with three big American refiners, including the New York-based Sweet's Inc., calling for the sale of more than a million tonnes annually for five years. And a few weeks ago, reports said Sweet's had sold its sweeter division in the Sugar Refining Corp. of America, which is headed by Mr. Antonio Florendo, a prominent Filipino businessman with close links to Mr. Marcos.

Production costs at present are estimated at around 10 cents per pound of sugar. According to industry sources, this can be brought down by 15 per cent, in two or three years provided serious efforts are made in this direction and provided crop loans from the Government are utilised to the maximum.

Even if small and marginal planters wanted to shift to other crops instead, as the Government would now want them to do, at this stage they have a lack of knowledge about other crops and there is not enough Government support and financing available although this may change.

Timber

THE PHILIPPINES' timber industry has little cause for cheer in the months ahead. While the price of logs, especially in the Japanese market, can be safely assumed to improve further in the near future, the prospects for semi-finished and finished products are dim, with both traditional and new markets considered here as still being flat.

The latest market report from the Philippine Lumber and Plywood Manufacturers Association (PLPMA) points out that Japan, because of its housing programme, remains the only viable market for Philippine logs. Korean, Taiwanese, European and American buyers, according to the report, have not placed any sizeable order for logs from the Philippines so far, reflecting high import duties for semi-finished and finished products in these countries. Japanese traders forecast an increase in prices of logs this month, with the expected increase in house-building. European buyers are also expected to show more interest.

It is in lumber, plywood and other products that the industry finds itself in serious trouble. Already, lumber inventories of Philippine sawmills are reportedly heavy. The European and Japanese markets are still considered dead, while shipments to the United States, suffering from delays, have been adversely affected by more prompt deliveries from Indonesia and Malaysia. Prices for plywood are described by the PLPMA as being "ridiculously below production cost," and this has forced some manufacturers to shift to veneer and corestock. This, however, while alleviating the seasonal glut in the local plywood market, could weaken further the already overstocked position of veneer in the export market.

Despite these factors, the performance of the timber industry so far this year has improved compared to last year when total export earnings from forest products amounted to only \$285m, a far cry from 1973 when earnings in just nine months reached \$495m.

Export receipts on the basis of central bank figures show timber exports totalling \$168m during the first seven months of 1977, as against \$138m during the same period last year, only by the need for more of the total export earnings to revenues without considering for this year, logs accounted for the state timber industry \$73.5m, against \$59.8m, in is in.

1976, while lumber and plywood earned \$46.3m, and \$17.1m, respectively. The trouble with the industry is that we do not know where we are or where we are going," said an industry expert, pointing out that aside from the depressed prices abroad, the industry also had to contend at home with increased operating costs, tight credit facilities and mounting adverse public opinion against their operations, which are seen as the main cause of deforestation and even of such natural calamities as floods. He also complained that the Government has not extended the industry much assistance by way of loans. "Why can't the Government close its eyes as it is doing with the hotel industry and allow us to export more logs?"

Dwindling

Faced with the need to conserve rapidly dwindling forest resources, the Government adopted a policy totally to phase out log exportation by 1978. In order not to dislocate the industry, however, as well as to preserve the country's own foreign exchange reserves, the ban was modified to allow certain firms who were engaged in log processing or planned to go into it, to continue exporting logs but only up to 25 per cent of their total allowable cut. Even this, sources say, is hard to achieve in view of conservation policy. Earlier plans along the lines of setting up new facilities for wood processing throughout the Philippines have now been set aside in view of the high costs of acquiring new mills and maintaining them properly. There is now instead talk of integrating the operations of existing firms with a view to laterally expanding their lines and production capacities. The necessity of such expansion is underlined by the need to be able to cope with the inevitable excess of logs once the ban on log exportation is finally implemented in full. Exporters are apprehensive about this in the face of adverse public opinion against them triggered off by a recent presidential decree requiring Filipinos aged 10 and above to plant a tree each month for the next five years.

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Tourist effort comes too early

WITH ITS present glut of hotel rooms, Manila may well be Asia's cheapest vacation centre. From just around 4,000 less than two years ago, hotel accommodation has leapt to the present 13,000 as 14 new hotels have risen in the Manila area alone. Officials who at the height of the construction work last year were saying the new facilities were just what the country's booming tourism industry needed no longer think so today, as behind the smart hotel facades sit the distressed sales manager.

Officials refuse to say exactly how much was spent, but sources in the department of tourism say government exposure alone in the new hotels amount to more than 3bn. pesos (more than \$U.S.400m.), not including the 800m. pesos (about \$108m.) that President Marcos has said went into the spanking new Philippine International Convention Centre.

Very few would still dispute that the hotel construction boom was an expensive case of over-reaction and overkill. Plans drawn up by the Department of Tourism called for the construction of new hotels on a staggered basis and everything was going fairly smoothly until 1974 when Manila was accepted as the site for the 1976 joint meeting of the International Monetary Fund and the World Bank.

Six thousand delegates and guests were expected—although only around 3,000 finally came—and Manila's existing hotel facilities, already filled by tourists, were obviously inadequate. At most, sources said, only half the actual number of new hotels built was needed to accommodate the added inflow. How the glut came about, or why it was allowed in the first place, is something officials would rather not talk about.

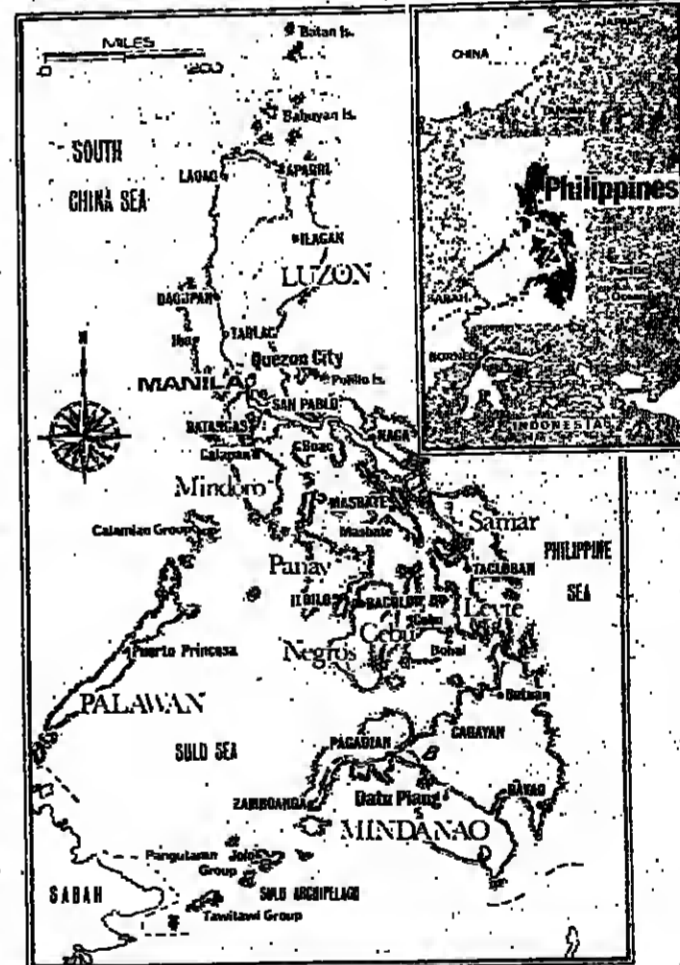
Repayment

To attract businessmen to the hotel industry, Marcos issued a decree granting them tax holidays, low interest on loans and longer repayment periods, among other incentives, and directed Government loan institutions to lend up to 75 per cent. — much more actually—of construction costs. All of this was in exchange for a promise to open on time and reserve enough rooms for the IMF-World Bank delegates.

The response was fantastic, with many, particularly those with connections in government, seeing in the incentives offered a rare opportunity for quick money, and it is known that some who deliberately padded their cash requirements invested part of their loans in the money market.

No sooner had the convention delegates left than it dawned on everyone that there were just not enough tourists to fill the hotels, or even to enable them to break even.

Swamped by requests for help from distressed hotel owners, the Development Bank of the Philippines (DBP) is conduct-



ing a study on the possibility of restructuring the hotel loans. The study is expected to be finished next month, and according to some sources the Bank is likely to agree to a restructuring in anticipation of defaults by hotel owners—who are also asking for a reduction in the interest rate from 12 to 8 per cent. Some have also reportedly approached the DBP for a refinancing of their loans.

The result has been the delight of tourists, a steep fall in hotel rates. The Government anticipated the underwriting that would inevitably follow as hotels started to fight for business and the Tourism Department issued a set of guidelines fixing a minimum \$18 rate for a single room below which a five-star hotel was not allowed to charge. For a short while this appeared to have been implemented, but inevitably hotel rates continued to plunge. Tourism officials no longer even as much as lift a finger now. "We have chosen to close our eyes," said one.

All this adds to the worries of the older hotels such as the Hilton, the Hyatt and the International. Despite their advantage of being able to stay in business with occupancy rates much lower than the 70 per cent. required by the new hotels just to break even, the old hotels' bappy days are over.

In the Hilton chain, for instance, says manager Axel Goerlach, the Manila Hilton has been listed as being in distress, which means Hiltons even in faraway Africa are supposed to sell the hotel.

The new hotel managements, however, remain optimistic des-

pite the fact that they are running at an average 50 per cent. occupancy, with some hotels even scoring only between 10 and 20 per cent. "Give us two years more and we will be in business," they say, pointing out that "this is exactly what happened in Singapore."

Just in break even, tourism sources say, the new hotels will be needing around 700,000 tourists — a figure still considered optimistic — staying an average five days. Tourist arrivals last year totalled only 615,159 albeit a 22 per cent. increase over the 502,211 of 1975. The Department of Tourism now estimates the country should be hitting the million mark by 1980.

This target has been elusive. Earlier forecasts were that this figure could be attained by 1977. But then the world recession has upset all that.

In the face of clamours from the industry Marcos has adopted an open skies policy and lifted the ban on international travel has so far met with scant success in selling Manila as a major international air policy, an additional 20 flights a week to Manila are expected to be approved soon, to go on the present 148 weekly flights, including charters.

While the Civil Aeronautics Board says Manila Airport can sustain the additional landing load, observers are sceptical about the airport facilities being adequate to handle the increase in passengers. At present, it takes only two jumbos and two smaller aircraft arriving one after the other to turn the airport into a babel of confusion.

The lifting of the travel ban on Filipinos was accompanied

however, by the slapping on of new travel taxes ranging from 750 pesos (\$100) to 3,700 pesos (\$493). The Tourism Department is complaining because while in the past 50 per cent. of the travel tax went to development programmes, the entire amount now goes into the Bureau of Internal Revenue.

Despite everything, however, the tourism industry has been performing exceptionally well since the proclamation of martial law in 1972, recording during the past three years an average annual growth rate of more than 30 per cent. As the base expands, tourism officials hope to maintain the growth between 15 and 20 per cent. during the years ahead.

Arrivals

Yet from 1966 to 1972 the obscure and neglected industry grew barely at an annual average rate of 9 per cent. In 1973, when the Department of Tourism was organised, tourist arrivals jumped by 45 per cent. to 242,311 from the previous year's 166,431. In 1974 the figure was even bigger—410,000—an increase of 68 per cent.

The growth in earnings from tourism was even more remarkable, rising from only \$32.5m. in 1972 to \$155.2m. in 1974 by an average 100 per cent. annually during those three years. In 1976 tourist receipts totalled \$235.2m.

The influx of tourists, triggered off, no doubt, by the restoration of peace and the following the martial law clampdown. This was accompanied by an intensive promotion campaign abroad and incentives to tourists.

In addition, "bahibayagan" (return to a homeland) project was launched in 1973 to attract Filipinos overseas to pay their homeland visit. Although the program was originally envisaged to last only a year, the results have encouraged the Government to extend it.

A new project was launched late last year. This the "reunion for peace" programme, aimed at bringing the Philippines all those fought in the country during World War II. The Government has also organised the Philippines Convention Bureau, which has so far met with scant success in selling Manila as a major international air policy, an additional 20 flights a week to Manila are expected to be approved soon, to go on the present 148 weekly flights, including charters.

While the Civil Aeronautics Board says Manila Airport can sustain the additional landing load, observers are sceptical about the airport facilities being adequate to handle the increase in passengers. At present, it takes only two jumbos and two smaller aircraft arriving one after the other to turn the airport into a babel of confusion.

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But filling up the new hotels remains the single biggest problem.

J.M.M.

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كلانا في الأصل

Towards local devolution in Ulster

By GILES MERRITT in Belfast

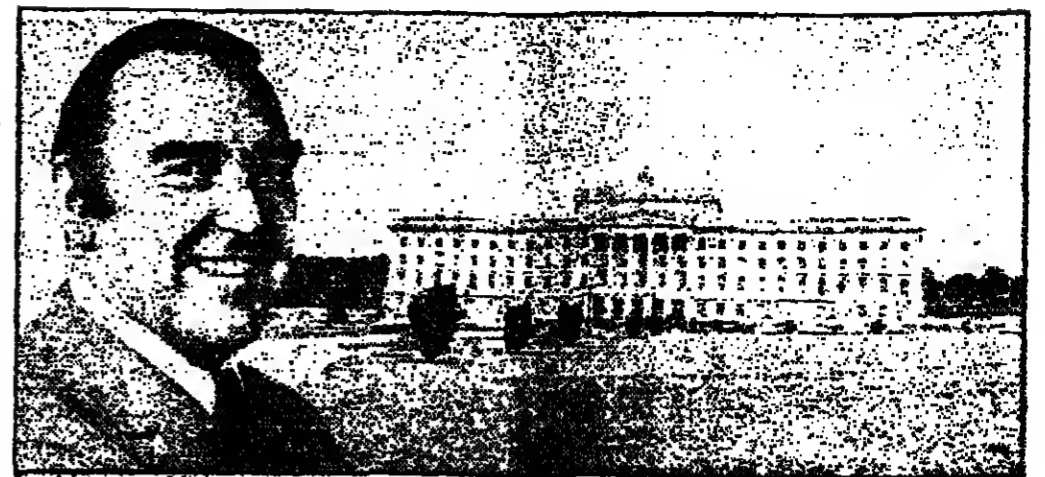
It is just two years since Northern Ireland last saw the glimmer of a political solution to its troubles.

No one yet really knows. To ensure that the package which he eventually puts forward for discussion has a reasonable chance of success.

They foundered on the same change in approach will not have pleased all his Stormont Castle officials.

Mr. Mason is nothing if not a realist, and the signs are that he is already setting himself only targets that are attainable.

But telling Unionists that their majority is only a working minority is dangerous stuff in the Ulster, and the Government is probably planning its hopes on an assembly election that would reflect the results of last May's local council polls.



Mr. Roy Mason: taking it slowly.

Right at the back of the British Government's mind there is the idea that as a last resort it might be able to persuade the Unionists to accept a system of handicapping in which Unionist members of an assembly would need to gain, say, 75 per cent in a division to win a majority.

All this is raw speculation, given Northern Ireland's habit of retreating to the sectarian barricades whenever an equitable formula is in the offing.

The SDLP, following its policy switch last month away from power-sharing in greater emphasis on an "agreed Ireland" solution involving Dublin, might on the face of it seem a greater obstacle to progress than the Unionists.

fort early

Productivity is the key

Every slogan is a gross simplification but most reduction is a backward step as jobs go.

Productivity improvement programs are called "cost reduction programs".

Productivity agreements are as much as "wage incentives".

Productivity improvement programs are called "cost reduction programs".

Letters to the Editor

coupled with demands to get on our own recent experience which would lead to such a conclusion.

Some years ago I had an option on some Cunard shares just as a take-over bid was developing.

From the Managing Director, William M. Mercer Benefits.

From Mr. W. Whetnall.

From Mr. Bryan Gould, MP.

Actuarial logic

From the Managing Director, William M. Mercer Benefits.

Regional airports

Danish butter subsidy

Devaluation as a stimulus

From Mr. W. Whetnall.

From Mr. Bryan Gould, MP.

From Mr. L. Goetin.

From Mr. L. Goetin.

From Mr. L. Goetin.

To-day's Events

EEC Finance Ministers meet. Luxembourg. EEC Foreign Ministers begin two-day meeting, Luxembourg.

Dr. David Owen, Foreign Secretary, speaks at Foreign Press Association lunch, Savoy Hotel, W.C.2.

Mr. Roy Mason, Northern Ireland Secretary, continues investment-seeking tour of U.S. Financial Times two-day conference on Gulf Finance ends, Bahrain Hilton.

London Chamber of Commerce trade mission to Israel begins (until October 28).

Mass picket expected outside Grumwack factory, Willesden, N.W.10.

British Library, W.C.1. (until December 4). Silver Jubilee Exhibition, showing story of Royal Collection from Henry VIII to Elizabeth II.

COMPANY RESULT Mothercare (half-year). COMPANY MEETINGS See Week's Financial Diary on page 31.

EXHIBITIONS Fabergé Exhibition, including loans from Royal Collection, Victoria and Albert Museum, South Kensington, S.W.7 (until October 23).

Free lunchtime program, BBC Music Concert Orchestra, conductor Christopher Alex, soloist Jean-Jacques Kantorow (violin), in programme of Mozart, Dvorak, Saint-Saens and Fruch, Guildhall, E.C.2, 12.15 to 2.15 p.m.

Regent Carter (organ), St. Michael, Cornhill, E.C.4, 1 p.m.

A new international financial company opens for business on October 17 in Hong Kong. MITSUI FINANCE ASIA LIMITED Capital: Authorized USS10 million, Paid Up USS10 million Shareholder: The Mitsui Bank, Ltd., Tokyo, Japan

COMPANY NEWS

Armstrong sees more growth

PROSPECTS for Armstrong Equipment remain exciting and the rate of increase in earnings will be maintained, providing the country's and the motor industry's economic situation does not worsen, Mr. J. Harry Hooper, the chairman, says in his annual statement.

BOARD MEETINGS

The following companies have notified dates of Board meetings to the Stock Exchange. Such meetings are usually held for the purpose of considering dividends. Official indications are not available whether dividends proposed are interim or final.

Heron tops £5.3m. and still moving ahead

WITH THE motor divisions again the largest contributors to sales and profit, Heron Corporation expanded taxable earnings for the year to March 31, 1977 by £0.52m.

Twinlock maintains recovery

FOLLOWING THE return to profitability in the second half of 1976-77 with a pre-tax balance of £177,350, Twinlock has stayed in the black in the first six months of the current year with a surplus of £10,000.

Garford-Lilley strong for new developments

With the necessary equipment, facilities and financial resources immediately available Garford-Lilley Industries is in a position of considerable strength to take full advantage of opportunities for development of new lines.

British industry more wary of investment in India

BY JAMES BARTHOLOMEW

Public confrontations between the Indian Government and two major U.S. corporations—IBM and Coca-Cola—have returned attention to the 'rupeesation' of foreign companies operating in India.

BIDS AND DEALS

Big dividend rise unlikely - Doland chief

In his letter recommending Maurice James' offer for George Doland, Mr. A. A. Davies, chairman of Doland, tells shareholders that a significant increase in dividend this year would be "extremely unlikely and imprudent."

LOCAL AUTHORITY BOND TABLE

Table with columns: Authority, Annual gross interest, Interest payable, Minimum sum, Life of bond, Year. Lists various local authority bonds.

NDC Systems S.A.

Systems Programming Holdings Limited

Finance of £1,751,000 was arranged by Standard Industrial Trust Limited for the acquisition of Systems Programming Holdings Limited.

Alfred Walker & Son Limited

Extracts from the circulated statement of the Chairman, Mr. R. A. Walker, for the sixteen months period ended 30th April 1977.

HOUSE BUILDING ESTATE DEVELOPMENT PROPERTY INVESTMENT

Table with columns: Terms (years), Interest %. Shows interest rates for different term deposits.

FINANCE FOR INDUSTRY TERM DEPOSITS

Deposits of £1,000-£25,000 accepted for fixed terms of 3-10 years. Interest paid gross half-yearly. Rates for deposits received no later than 21.10.77.

Jones, Stroud (Holdings) Limited

Capitalisation Issue of 1,093,151 10 per cent Cumulative Preference Shares of £1 each. The Council of The Stock Exchange has admitted the above Preference Shares to the Official List.

SE watching Elliott's Saudi order position

The Stock Exchange, whose listing agreement with quoted companies requires an appropriate flow of information from listed concerns to the investing public, is keeping a watch on the situation at Elliott Group of Peterborough, where 254m. of Saudi Arabian orders announced in August have turned out to be firm contracts.

MILN MARSTERS

Miln Marsters Group announce proposals for an increase in the authorised share capital from £700,000 to £1.1m. and a capitalisation issue of new Ordinary shares of 50p for every two issued ordinary shares of 50p.

CENTREMOST PROPERTIES

An order for the compulsory winding-up of Centremost Properties has been rescinded by Mr. Justice Oliver in the High Court.

FT Share service

The following security has been added to the Share Information Service appearing in the Financial Times: Pawson (W. L.) (section: Drapery and Stores).

SIMCO MONEY FUNDS

Table with columns: Rates of deposits, w/c upwards for w/c 16.10.77. Lists interest rates for various money funds.

All these securities having been sold, this announcement appears as a matter of record only.



Toray Industries, Inc.

U.S. \$30,000,000 7 1/2 per cent. Guaranteed Notes due 1984

unconditionally and irrevocably guaranteed as to payment of principal, premium (if any) and interest by

The Mitsui Bank, Limited

S. G. Warburg & Co. Ltd.

Nomura Europe N.V.

Banque de Paris et des Pays-Bas

Commerzbank Aktiengesellschaft

Kidder, Peabody International Limited

Manufacturers Hanover Limited

Swiss Bank Corporation (Overseas) Limited

Table listing various international banks and their branches, including Algemeene Bank Nederland N.V., ASIA - Asian International Acceptances & Capital, Banca Nazionale del Lavoro, etc.

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more water in India

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Pending dividends timetable

For the convenience of readers the dates when some of the more important company dividend statements may be expected in a next few weeks are given in the following table...

Table with columns: Date, Announcement, Last Year, etc. Lists various companies and their dividend schedules.

Public Works Loan Board rates

Table showing Public Works Loan Board rates for various terms (3 to 25 years).

RECENT ISSUES

EQUITIES

Table of equity market data including high and low prices for various stocks.

FIXED INTEREST STOCKS

Table of fixed interest stocks with columns for issue date, amount, and price.

"RIGHTS" OFFERS

Table of rights offers with columns for company name, issue date, and price.

BASE LENDING RATES

Table of base lending rates for various banks and financial institutions.

INTERNATIONAL COMPANY NEWS Bofors hopes to regain some of interim profits slump

EARNINGS by Bofors, the Swedish armaments steel and chemicals concern, slumped by half to Kr.3.5m. (€37m.) during the first eight months of the year...

Setback at Euroc

The management, however, expect a considerable improvement in the final four months, when, as last year, billing will increase...

Charter New York ahead

FINANCIAL TIMES REPORTER CHARTER NEW YORK CORPORATION, the parent of Irving Trust Company and 14 other banks in New York State...

Share placing by Komatsu

KOMATSU Forklift Company is placing privately 5m. common shares. The new shares with a par value of ¥50 will be represented by Continental Depository Receipts...

Money and Exchanges

Bank of England Minimum Lending Rate 5 per cent. (since October 14, 1977). The pound's trade-weighted index on Bank of England's very steady however, finishing at 62.4, compared with 62.3 on the previous Friday.

Table of foreign exchange rates for various countries.

FOREIGN EXCHANGES

Table of other market data including gold and silver prices.

GOLD MARKET

Table of gold market prices and transactions.

EXCHANGE CROSS-RATES

Table of exchange cross-rates for various currencies.

EURO-CURRENCY INTEREST RATES

Table of Euro-currency interest rates for different terms.

CURRENCY RATES

Table of currency rates for various international currencies.

MINING NOTEBOOK The gold price and the quarterlies

ON FRIDAY evening gold was quoted in New York at \$180.60 compared with its close in London at \$186.375. Today's course on this side of the Atlantic will thus be watched with keen interest to see whether a new trading range above \$180 is indeed being established only four weeks after the important break above \$180.

Many shareholders were unimpressed, and reportedly went away convinced, rightly or wrongly, that the shorter working week, Mine-workers' union leader Mr. Archie Fautus naturally has other views. Both sides, in other words, are already taking up their positions for the battle next year when the present experiment is due to end and the explosive question of a straightforward five-day week will have to be thrashed out.

The ability to raise milling rates is of particular importance at a time of high inflation in combating its effect on unit costs. Another reason, in fact, why Johannesburg sources are being cautious about September quarter profits is that costs will reflect the latest round of wages increases that started in August.

Pancontinental Pancontinental's share market bubble has already burst with price lingering at a depressed 600p. In this case less than half its level of earlier this year. But here is a bubble that could easily be refueled, as there is at least no doubt about the uranium bonanza on which the company is sitting.

A Little extra spice has been added to the BH South enquiry, about which I wrote in my September 28. Since then its sister Collins House company North Broken Hill has further increased its shareholding to 14.4 per cent. BH South may be currently struggling, but the House is either convinced that it has a brighter future or is still trying to ward off a potential predator, BH South are 92p.

Litigation too costly for many

WHEN IN early post-war days proposals were made for the introduction of a free legal aid system, the cost of litigation was a major factor. The cost of litigation is still a major factor, but now it is the cost of the legal aid system itself that is the problem. The cost of litigation is still a major factor, but now it is the cost of the legal aid system itself that is the problem.

London tea sales

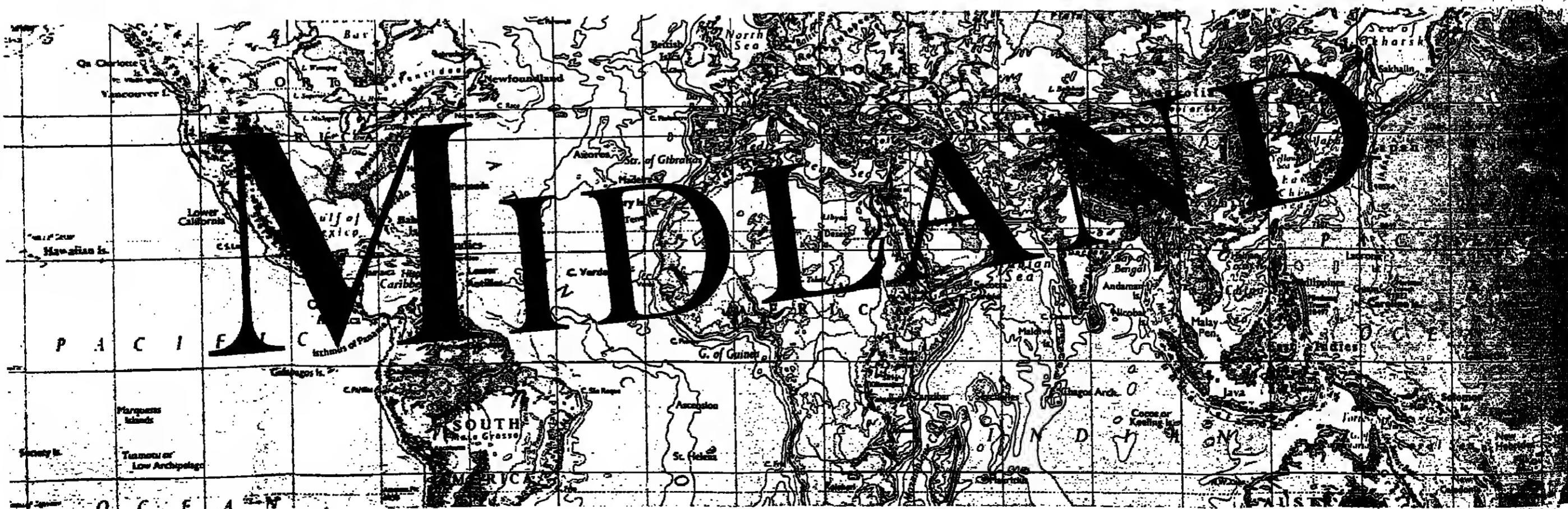
Table of London tea sales with columns for variety, quantity, and price.


Paterson, Zochonis & Company Limited advertisement regarding the redesignation and alteration of the rights of certain Preference Shares in the Company. Includes details on former and present designations and dividend payments.

We deliver.

Eurocurrency finance: You will find our approach to your needs imaginative and our terms hard to beat. We will give you a prompt yes or no on whatever you require. Cut red tape to a minimum. And make sure documentation isn't a waste of your time.

TESTUS: Contact George Barrett our Corporate Finance Director. Tel. London 606 9944, ext. 4210, telex 888401, or write, Midland Bank Limited, International Division, 60 Gracechurch Street, London EC3P 3BN, England.



Midland Bank International  Delivers.

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PLANT & MACHINERY SALES

Table with columns: Description, Price, Telephone. Lists various industrial machinery like wire drawing machines, rolling mills, and cranes.

WANTED

MODERN USED ROLLING MILLS, wire rod and tube drawing plants—roll forming machines—drawing—flattening and cut-to-length lines—cold saws—presses—guillotines, etc.

WEEK'S FINANCIAL DIARY

The following is a record of the principal business and financial events during the week. The Board meetings are mainly for the purpose of considering dividends and official indications are not always available whether dividends concerned are intercut or not.

Table with columns: COMPANY MEETINGS, DIVIDEND & INTEREST PAYMENTS, BOARD MEETINGS. Lists various companies and their financial events.

General Contracting Company, General Trading Company, Saudi General Transportation Company, Saudi Arabia, General Transportation Enterprises Kuwait, Transporting and Trading Company, Inc. US \$10,000,000 medium term loan.

GROUP LOTUS CAR COMPANIES LIMITED HALF-YEAR RESULTS. Lotus Lotus Car Companies Ltd. announce unaudited Group financial results for the 26 weeks ended 1st July 1977.

NOTICE OF REDEMPTION to Holders of G.T.E. INTERNATIONAL INC 8 1/2% Guaranteed Bonds 1986. NOTICE IS HEREBY GIVEN that pursuant to Section 5 (a) of the terms and conditions of the Issue whereby \$150,000 principal are to be redeemed at par on 15th November 1977...

CASSA PER IL MEZZOGIORNO, ROME (ITALY) LOAN 5 1/2% 1963-1978. The bonds of UC 1 000 and UC 200 000 are redeemable from 31st October 1977 at the following institutions:

Comisión Federal de Electricidad Mexico, D.F. US \$ 34,000,000 Medium Term Loan managed by European Banking Company Limited and Bayerische Vereinsbank. This announcement appears as a matter of record only August 1977.

Private Placement August 1977. Comisión Federal de Electricidad Mexico, D.F. DM 60,000,000 7% five year notes. Bayerische Vereinsbank, European Banking Company Limited, Creditanstalt-Bankverein, Industriebank v.o Japan (Deutschland) Aktiengesellschaft, Société Générale, Vereins- und Westbank Aktiengesellschaft.

NOTICE OF REDEMPTION to Holders of G.T.E. INTERNATIONAL INC 8 1/2% Guaranteed Bonds 1986. BOND LISTING: 79-739 1504 2286 3931 3644 4350 5013 5728 6518 7176 7844 8654 9277 9000 10533 11266 11809 12438 13490 14201 14724...

OVERSEAS MARKETS

EUROBONDS

Dollar markets trying to stabilise

BY MARY CAMPBELL

THE SLIDE in Eurodollar bond prices continued last week as a show sign of tapering off on Thursday evening and Friday, but dealers were divided on the extent to which the market was fundamentally stabilising or merely momentarily pausing for breath.

Expectation

The environment last week was hardly auspicious for a recovery in Eurodollar bond prices — or indeed even a stabilisation. The expectation of an extremely large rise in the U.S. money supply became widely spread early in the week, and when the figures came out they were at the top end of the forecast spectrum.

At the same time the dollar itself continued to ease, with the franc last week being held at 165.50 against the dollar, down from 166.50 on Friday.

Expectation

The environment last week was hardly auspicious for a recovery in Eurodollar bond prices — or indeed even a stabilisation. The expectation of an extremely large rise in the U.S. money supply became widely spread early in the week, and when the figures came out they were at the top end of the forecast spectrum.

Quebec \$90m: (cut back from a scheduled \$75m) and the American Hospital Supply Co. \$25m, fall in large discounts in secondary market trading, if it had not been for the fact that dealers were shell-shocked by the general behaviour of the market there would doubtless have been a big outcry about both. American Hospital Supply sank below 98 1/2 bid at one point, after a 99 1/2 bid, while the American Hospital Supply Co. was bidding two points below the offering price of 99 throughout the first day's trading on Friday.

Comfort

The only crumbs of comfort were that the Canadian dollar issue did recover a bit towards the end of the week while there seems to have been very little trading in the Quebec issue.

Table with columns: Borrowers, Amount, Maturity, Av. Life, Coupon, Price, Lead Manager. Includes entries for U.S. DOLLARS, EURO-DOLLARS, CANADIAN DOLLARS.

Indices

NEW YORK - DOW JONES

Table showing Dow Jones indices for various sectors: Industrial, Transportation, Utilities, Bond, etc.

STANDARD AND POORS

Table showing Standard and Poors indices for various sectors: Industrial, Transportation, Utilities, Bond, etc.

N.Y.S.E. ALL COMMON

Table showing N.Y.S.E. All Common stock indices for various months.

MONTREAL

Table showing Montreal stock indices for various months.

JOHANNESBURG

Table showing Johannesburg stock indices for various months.

GERMANY

Table showing Germany stock indices for various months.

BONDS (INDEX AND YIELD)

Table showing bond indices and yields for various maturities.

EUROBOND TURNOVER

Table showing Eurobond turnover statistics.

INDUSTRIALS

Table showing industrial stock indices for various countries.

OVERSEAS SHARE INFORMATION

NEW YORK

Large table listing various overseas share prices and movements in New York.

INVESTMENT PREMIUM

Investment premium based on \$2.60 per £100 (90%)

Table showing investment premium data for various regions.

CANADA

Table showing Canadian share prices and movements.

AMSTERDAM

Table showing Amsterdam share prices and movements.

TOKYO

Table showing Tokyo share prices and movements.

COPENHAGEN

Table showing Copenhagen share prices and movements.

BRUSSELS/LUXEMBOURG

Table showing Brussels/Luxembourg share prices and movements.

STOCKHOLM

Table showing Stockholm share prices and movements.

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FINANCIAL TIMES SURVEY

Monday October 17 1977

Nuclear Power

Holding course under attack

THE MOST disheartening aspect of this anniversary year of a genuine technological triumph or Britain is the publicity that has been given, often with overt encouragement from politicians, to attempts to demonstrate the incompetence of those who have built up the nuclear industry in Britain. The more subtle critics merely seek to apply that their record has been unimpressive—certainly not good enough for the nation to trust them with the latest technologies, such as fast breeder reactors and oxide fuel processing that they have helped to create. They use emotional words like traffic, id slaves, when speaking of nuclear exports and international nuclear trade.

The less subtle are less inhibited in their assertions at the real price of the 13 per cent of nuclear electricity Britain is burning is already totally unacceptable risk to health and well-being from radioactivity polluting our atmosphere, rivers and seas. Beneath a stream of abuse rich to the evident exasperation of Mr. Justice Parker at the Windscale Inquiry these past weeks—has built up to a point, the nuclear industry is being for another year with some of Britain's toughest industrial problems. It is building three large nuclear power

stations at a time when the problems of managing any large construction project—even repetitive ones such as petrochemical plants—have never been greater. It has brought to fruition in a £55m. factory a new technology for uranium enrichment that called not only for highly innovative engineering design but for standards of manufacturing technology that U.S. observers said frankly were beyond the capacity of the U.K. It has updated once more a nuclear fuel concept originally designed a quarter-century ago, to a point where its energy output now closely approaches the maximum that might theoretically be obtained for the fuel.

And it has embarked on a £245m. reconstruction of the world's biggest and most productive reprocessing plant at Windscale. Taylor, Woodrow has been awarded the contract for engineering, management and services for the "refurbishing," and has assembled a team of about 180 at Southall to undertake the task. This will take the next five or six years, and will virtually rebuild the front end of the plant. Then a second project costing perhaps another £100m. will be undertaken to rebuild the back end.

Negotiated

The nuclear industry has also successfully negotiated contracts worth about £350m. for the transportation to Europe and subsequent reprocessing of 1,600 tonnes of highly radioactive spent fuel from Japan's electricity industry. Japan will provide about £100m. as a downpayment towards the cost of constructing a new £600m. chemical plant at Windscale, called the thermal oxide reprocessing plant (THORP). Further large contracts are being negotiated in Europe, with W. Germany, Sweden and Switzerland.

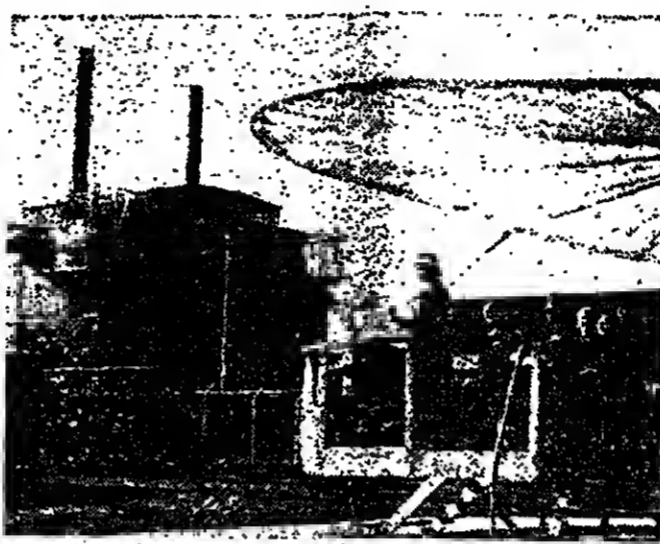
These contracts are of course conditional on a final decision

The 21st anniversary of the opening by the Queen on October 17, 1956, of Calder Hall, Britain's first nuclear station, and of the first nuclear-derived electricity to enter a national grid, finds Britain about to take major decisions on its nuclear power programme. DAVID FISHLOCK, Science Editor, discusses prospects.

by the British Government whether it wishes THORP to go ahead. To avoid any charges that it was prejudging the recommendations of the Windscale inquiry, British Nuclear Fuels has been firmly discouraged from joining the French in signing up new reprocessing contracts. But in this regard the Government reneged on an understanding that the industry could import and store the spent fuel, but that its customers would renounce it again if permission for THORP were refused.

After 90 days of evidence to the inquiry, the most concrete objection to THORP—in a situation where the regulatory authorities have clearly established that either the plant will be built and operated to statutory levels of public safety, or it will not be allowed to operate at all—appears to remain its potential contribution to the proliferation of plutonium. But opponents of THORP began the inquiry having already tacitly accepted that reprocessing and the separation of plutonium on a large scale—tonnes per year—would continue for the rest of the century in the Magnox reprocessing plant at Windscale. The first of Britain's Magnox stations, Calder Hall, is expected to continue in service at least until 1990; the last, until the end of the century or later.

It is true that oxide fuel of the type to be treated by THORP yields more plutonium than Magnox fuel—0.6 to 1 per cent, compared with 0.2 per



"For centuries past, visionary ideals and practical methods which have gone from our shores have opened up new ways of thought and modes of life for people in all parts of the world. It may well prove to have been among the greatest of our contributions to human welfare that we have led the way in demonstrating the peaceful uses of this new source of power." —The Queen, opening Calder Hall, October 17, 1956.

cent. for Magnox. But the prospect for the British nuclear industry is uranium enrichment, more readily made into explosive using the new gas centrifuge process. Moreover, the Magnox technology. Commercially the plant has a specific weapons project off to a brisker start role, namely to recycle regu- than Urenco, the tripartite lary the large stockpile of Anglo-German-Dutch corich plutonium explosive already ment company, ever expected, extant in Britain, in order to with orders for about £1bn. for of energy since the steep increases in costs of 1973 have led to a chronic over-capacity of nuclear reactor construction

the contracts were on terms which permitted postponement if the enrichment was not needed. The nuclear plans of most of the German customers—affecting about half of Urenco's 20 firm contracts—have slipped by about three years.

Urenco's original commercial plan, announced in 1973, forecast an enrichment capacity of 2,000 tonnes by 1980-82, divided between the Capenhurst factory in Britain and the Almelo factory in Holland. But Mr. Con Alday, managing director of BNFL—Britain's shareholder in Urenco—thinks it will now be 1985 before the company finds markets for so much enrichment. But he remains confident that the market will build up very rapidly during the late 1980s. Planners at Capenhurst have a model which shows the site laid out for a capacity of 10,000 tonnes. Meanwhile, Urenco is talking to the Australians about a reciprocal deal in which it would provide them with gas centrifuge technology to add value to their uranium, in exchange for guaranteed supplies of the fuel.

But the once-glamorous end of the nuclear industry, namely reactor design and construction, looks much less promising for the U.K. as a potential export market. Heightened interest world-wide in the conservation of energy since the steep increases in costs of 1973 have led to a chronic over-capacity of nuclear reactor construction

facilities world-wide, leading to fierce competition for orders. Moreover, increasing concern about the risks of proliferation have cast doubts on whether acceptable terms in the supply of the more likely markets can be agreed internationally.

In July the Department of Energy released a summary of the thermal reactor assessment carried out at the request of the Secretary for Energy. The National Nuclear Corporation which had submitted its recommendations with the assessment, concluded that Britain should build at least one or two more stations using the advanced gas-cooled reactor (AGR), because no other type of reactor was available to permit a quick start to a new nuclear construction programme.

But it also recommended that Britain should license the U.S. designed pressurised water reactor (PWR) and start right away to prepare for this reactor to succeed the AGR. Its main case for this dual proposal was the exportability of the PWR, and the support it would also give to those companies already exporting components and services for PWRs. It offered no hope that Britain might export the AGR.

Assessment

It has since become clear that the main body of the thermal reactor assessment—prepared by the Nuclear Power Company, operating arm of the NNC—contains little evidence at least to support the idea that Britain might readily find export markets for complete (or largely complete) PWRs. For example, it says that even if Britain were to capture the entire reactor market represented by what the assessment sees as its four best export markets, sales would amount to no more than a single 650-MW reactor a year through the 1980s. The report says that, in the future development of the British nuclear programme,

reactor export expectations throughout the 1980s "could lie between zero and two reactors a year."

Those who are eager to see Britain adopt the PWR, and thus enter at last the mainstream of reactor technology, point out that a market of this size would be very much more than Britain has ever enjoyed in the past, with just two Magnox exports to its credit. But lined up against them are those who say that Britain has had a hard struggle to make a success of its AGR, and should now concentrate upon capitalising on this hard-won experience for the benefit of its own electricity supply.

If it chooses the AGR, Britain can probably discount any hope of exporting complete nuclear reactors at least until the 1990s or later. By then, however, it may find two new opportunities—in the fast breeder reactor and in high temperature reactors developed upon its AGR experience. In the short term, its export potential will be restricted largely to the reprocessing of spent nuclear fuel. By the latter half of the 1980s this could be supplemented by exports of enrichment services and possibly the export of enrichment technology.

If the Government, in its wisdom, accepts that this shall be the pattern, two important decisions must inevitably follow. One is that a reactor construction industry structure at present controlled by a company which has seemed strongly committed in the PWR will need modification, perhaps by bringing construction and fuel services more closely together. The other will be to see that the immense experience of the Windscale inquiry is used to the greatest effect to try and ensure that no needless hiatus occurs in the future development of the British nuclear programme.

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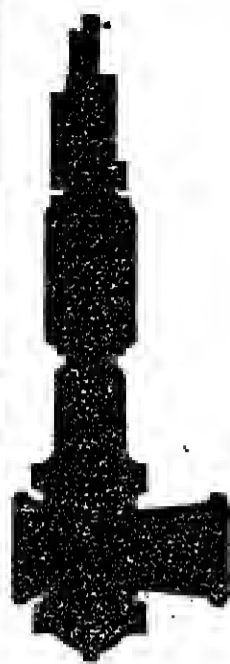


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IN A BOOK published to-day to mark the 21st anniversary of the Queen's opening of Calder Hall, Britain's first nuclear power station, and of the first nuclear electricity to enter the national grid, the author concludes that since 1956 there has been a quiet revolution in the nation's fuel economy—so quiet that it passed almost unnoticed "even within the industry that brought it about." A new energy source, pioneered by Britain, has established itself in competition first with indigenous coal, then with cheap imported oil, and over the past decade with indigenous gas and oil.

Nuclear electricity to-day accounts for 10 per cent of Britain's installed electrical capacity, and 13 per cent of the units sent out last year were generated in nuclear boilers. The country has accumulated over 300 reactor-years of experience of the new technology—of which the Central Electricity Generating Board accounts for half—for a per capita cost in death and disease which the Government acknowledges is impressively less than for any other energy industry.

Commercial
Calder Hall in Cumbria was not, as is so often claimed, the world's first demonstration of nuclear power. The first reactor to generate more electricity than it needed was a demonstration submarine reactor in the U.S. in 1952. Then the Russians in 1954 produced 5MW of surplus power from a small reactor at Obninsk. But Calder Hall is indisputably the first nuclear power station of what, for its day, was commercial size. However, as Lord Hinton recognised the very day it was opened, it also marked the end of an era: "The end, the very end, of those buccaneering days when a compact team had been able to pursue simple, well-defined objectives."

The well-defined objective was to increase Britain's output of plutonium for weapons. Previously plutonium had been made in simple air-cooled "piles" at Windscale. Lord Hinton, as head of the Industrial Group of Britain's nuclear project, urged his paymasters in defence to let him enclose the "piles" in a pressure vessel, akin to a chemical reactor, cap-

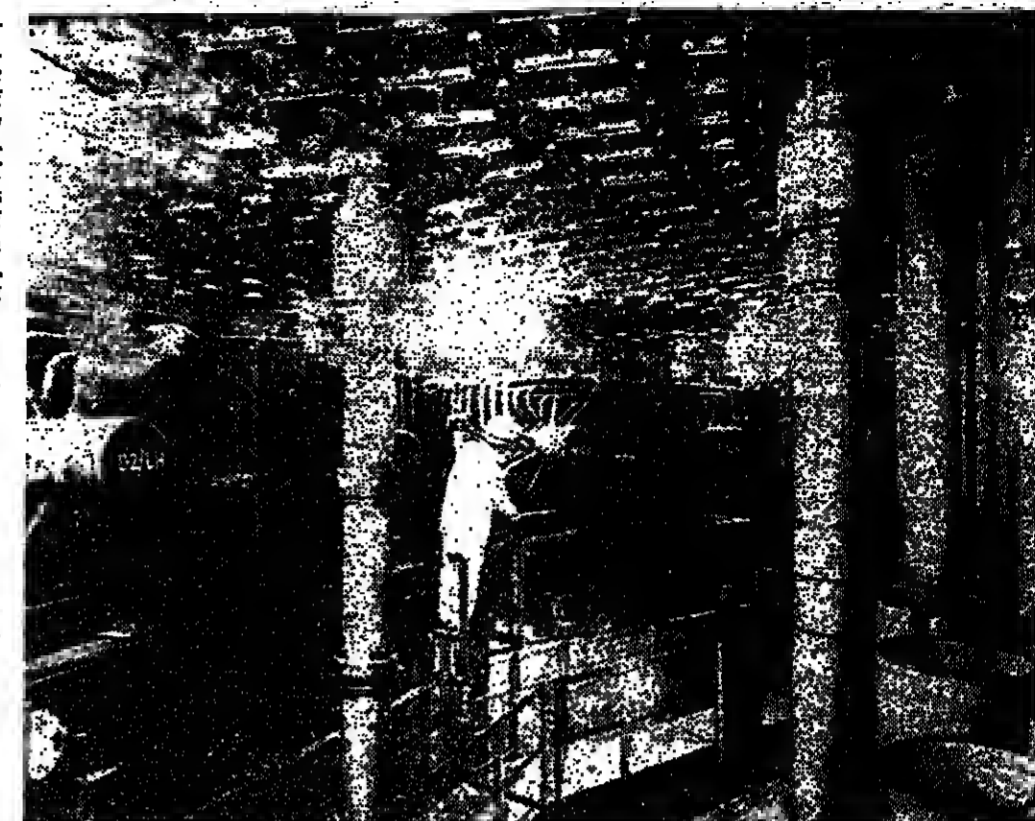
ture the heat and raise a by-product of electricity. The other big advantage was that such a "reactor" would need less uranium because it could run at a higher temperature than the piles.

Backed by Lord Cherwell, the Government's top scientific adviser, he won approval early in 1953, and began work on site in August that year. Fossil-fuelled power stations in the 1950s were taking about five years to bring on-load. But only 38 months after site work began Calder Hall sent its first electricity into the grid.

The project brought together a wider span of industrial skills than anything Britain had attempted before. Taylor Woodrow won the £2.5m. civil contract, and ever since has been a pioneer in nuclear containment. Whessoe advanced the boundaries of heavy steel fabrication in Britain in making the pressure vessels—cylinders about 70 feet tall and 36 feet across, welded from 2-inch steel plate to unprecedentedly tight tolerances. Babcock and Wilcox manufactured the heat exchangers under a final dimensional constraint dictated by what would pass round a sharp corner in the nearby village of Egremont.

Calder Hall, as a project, enjoyed a combination of advantages that are not easily reassembled. Hinton himself launched the project and set the overall schedule. It had top priority as a defence contract, and later priority as the progenitor of a programme of civil nuclear power stations, launched by the Government early in 1955. But the achievement was nevertheless repeated—for its twin, the Chapelcross station in Scotland, which produced power four days ahead of its scheduled 40 months of construction.

For 20 years these two stations, now owned and operated by British Nuclear Fuels (BNFL), have ranked high among the world's most successful nuclear stations. Since the 1960s when the Ministry of Defence decided that it needed no more plutonium, the reactors have been re-optimised as power producers. Between them they have generated over 60m.MW-hours of electricity. Both stations, although small by today's standards, are within



Inside the pressure vessel in Reactor 3 at Hunterston B AGR station of the South of Scotland Electricity Board.

Targets

But a careful appraisal by the company and the Nuclear Installations Inspectorate indicates that the station has a life expectancy far beyond anything Lord Hinton contemplated. The company plans to run both Calder Hall and Chapelcross at least until 1990. It has set in motion a programme of capital investment that will cost about £5m, at each station over the next few years. The targets for maintenance are cooling towers, heat exchangers, turbines, blowers, instrumentation, etc.

As for the pressure vessel and graphite core, no replacement is foreseen at present—a remarkable testimonial to the quality of their design and manufacture. However, BNFL has embarked upon a development programme keeping close watch on the progress of these critical features, in order to anticipate well in advance any modification that may one day be required.

Calder Hall and its twin pioneered the construction of a series of commercial nuclear power stations operating in Britain to-day, all using the same basic concept, namely gas-cooled graphite moderated reactors. Operating temperatures have risen as the programme progressed, from 345°C at Calder Hall to-day to 600°C for the advanced gas-cooled reactors. Again it was Hinton, as chairman of the Central Electricity Generating Board in the late 1950s, who launched the commercial Magnox reactors.

Mr. Glyn Eogland, present chairman of the CEBG, reviewing its 15 years of experience with nuclear boilers, said recently that he believed "the commercial introduction of the nuclear power into the electricity supply system, with a

LEAGUE TABLES OF NUCLEAR PENETRATION

	Nuclear power produced as a % of electricity (1976)	Nuclear installed capacity (1977) (% of total installed generating capacity)
Belgium	21.0	Sweden 14.5
Sweden	18.0	Belgium 13.7
Switzerland	18.0	West Germany 11.0
Britain	13.0	France 10.3
Spain	10.6	Britain 10.0

Source: U.S. Atomic Industrial Forum

Nuclear Laboratories, sees his role.

For example, the CEBG announced this summer that as a result of its fuel studies it is increasing the burn-up of Magnox fuel from 4,200 to 5,000 MW-days per tonne. The consequence will be savings in uranium requirements of up to 200 tonnes a year, worth about £150m, over the next ten years. The CEBG's 16 Magnox reactors burn about 1,000 tonnes of uranium a year at present.

Dr. Edmondson is also deeply embroiled in fine-tuning the CEBG's new oxide-fuelled advanced gas-cooled reactors, much hotter than Magnox. Its first two, at Hinkley B, commissioned last year, are putting out up to 1,000-MW—80 per cent of the station's design output.

"Those things we spotted as limiting features have proved less so than we believed," he says. Over the next few months he expects Hinkley—and its "twin" the Hunterston B station of the South of Scotland Electricity Board—to be pushed up to something close to full design output, 1,200-MW.

"Nuclear power by Dr. R. F. Pocock, Uranium Brothers and the Institution of Nuclear Engineers; £12.80.

minimum of fuss, has been an achievement of great technical, economic and social significance." The Magnox reactors were "now exceeding our most optimistic expectations." They were "so tough and reliable among utilities worldwide in having its own in-house nuclear research and development programme, designed to keep its nuclear stations operating at peak efficiency throughout their lifetime. "The Red Adair of the nuclear business—except that we solve the problems before rather than after," is Dr. Bryan Edmondson, Institution of Nuclear Engineers; £12.80.

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Whole Body Monitor NE 6102 in steel room (Courtesy British Nuclear Fuels Ltd., Springfield Works).

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THE CENTRAL ELECTRICITY GENERATING BOARD

Problems in choosing the right reactor

BRITAIN HAS been agonising over the choice of a thermal reactor since 1964, when U.S. General Electric offered to sell Britain a boiling water reactor (BWR) in terms highly competitive with those he expected for the U.K. Atomic Energy Authority's new advanced gas-cooled reactor (AGR). U.S. GE's offer was based on the Oyster Creek contract it had just succeeded in winning for America's first "commercial" nuclear station in the event Oyster Creek had at least the next ten contracts won by U.S. (E) turned out to be loss-leaders.

The reactor assessment of 1964-65 concluded that the AGR would yield power 10 per cent cheaper than the BWR. But the reactor design assessed, for Dungeness B, has still produced no power, and is unlikely to do so for another two years. An improved AGR design, executed by a more competent project management, was brought to fruition at the Hinkley B and Hunterston B stations early last year—almost nine years after the contracts were placed—and has performed well since then. A more advanced AGR design, ordered for the Hartlepool and Heysham stations, is not expected to raise power before 1980. It introduces construction problems that appear to outweigh any advantage of the more advanced design. For all practical purposes, therefore, Britain has one basic design of AGR worth considering to-day.

One of the rivals of the Hinkley B AGR type is the steam-generating heavy water reactor in which the industry (SGHWR), originally has invested—in producing the U.K.AEA's insurance policy facilities; test rigs, etc. No such test the AGR concept should prove unworkable. In 1974, the SGHWR because the firm when an AGR was operating and down in electricity demand pre-

vented any placing of orders. By mid-summer the Nuclear Power Company, in the latest assessment of reactor choice commissioned by the Department of Energy, had concluded that Britain should continue with its Hinkley B AGR, with some modifications—for example, to make it more accessible for maintenance. In reaching this conclusion it believed it had the support of the CEBG—by now under new management—and the South of Scotland Electricity Board, as well as most of the main suppliers.

But it did not have the support of GEC. Since 1973 GEC has firmly supported the adoption of the Westinghouse PWR. Sir Arnold Weinstock, GEC's managing director, made commercial sense of the CEBG's previous preference for the reactor by negotiating a tripartite collaboration with Westinghouse and its French licensee Framatome. And GEC is the largest private shareholder in the National Nuclear Corporation (NNC), parent body of the Nuclear Power Company.

Late in July Lord Aldington, chairman of the NNC, revealed the conclusions of the thermal reactor assessment, as finally passed to Government. They assumed a programme of four stations of 1,100-1,300 MW ordered over a six-year period, with construction commencing in 1978. They proposed that the Government should abandon the SGHWR. They suggested that the Government should order at least one or two more AGR stations while simultaneously introducing the PWR because of its export potential.

As Lord Aldington's report sees it to continue with the AGR and to ignore the PWR, the world's best-selling reactor, another 17 nations plan to have

Assured

- 1. No-one—no potential customer or supplier—is seriously promoting the BWR in Britain for, in that matter, Canada's Candu reactor.
- 2. Detailed design studies of the SGHWR, taking account of Britain's safety regulations and the operating conditions that its utilities are accustomed to, indicate that it will be a much bigger engineering problem than was anticipated in 1974, and significantly more expensive to build.
- 3. The nuclear inspectors have been able to find no fundamental reason for rejecting the PWR.
- 4. The first two AGR stations are now operating—and one basic design of AGR worth considering to-day.

would be "turning our backs on exports of nuclear power stations, with potentially damaging consequences for the future export of British power plant."

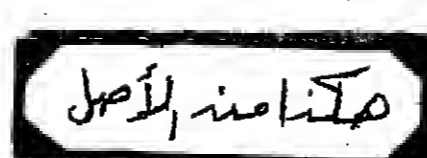
Such an argument, clearly inspired by one of Britain's most successful exporters, cannot be dismissed lightly. Yet there are serious risks in attempting to pursue two types of reactor in parallel in circumstances where both types will need some adapting to meet the needs of the home market. The question is therefore to what extent those risks can be offset by the overseas market potential for a type of reactor Britain has not built before.

Potential

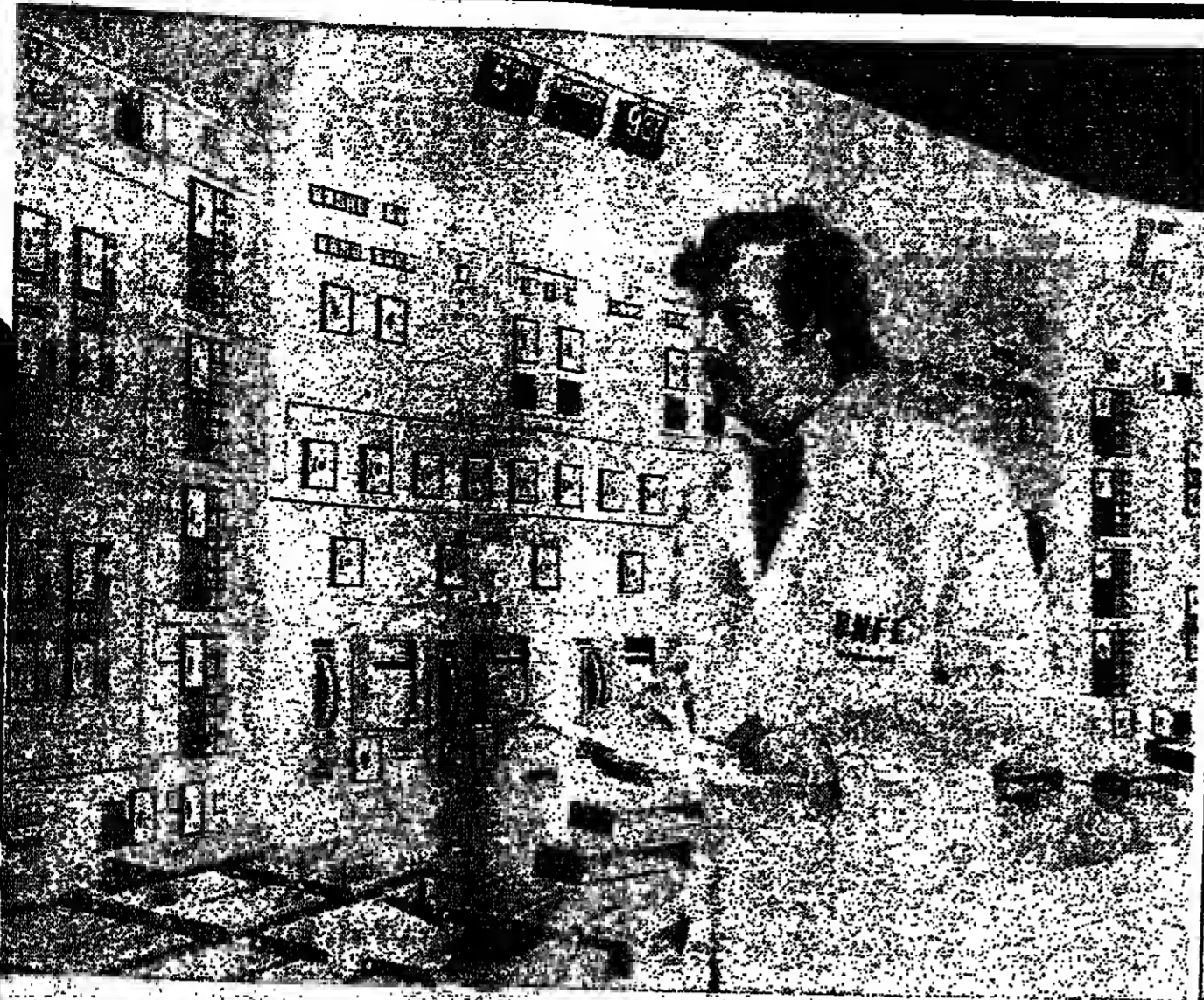
At first sight the market potential is very considerable. It lies mainly in the developing countries since—with a few exceptions, such as New Zealand—most advanced countries have laid plans to fulfil their own nuclear requirements. But statistics collected by the International Atomic Energy Agency in support of its studies of skilled nuclear manpower requirements indicate that the developing nations will want at least 283,000 MW of installed capacity by the year 2000. The maximum predicted figure for this market sector is 437,000 MW by that year.

At present the Third World has a total of eight nuclear plants operating in five countries. But these five and another dozen have 28 reactors under construction, four ordered, and 16 planned. When completed—by the mid-1980s—they will be worth nearly 30,000 MW, the world's best-selling reactor. Another 17 nations plan to have

CONTINUED ON NEXT PAGE



NUCLEAR POWER III



Control room of the gas centrifuge enrichment plant at the Capenhurst works of British Nuclear Fuels.

Selling the 'sensitive' technologies

CLEAR FUEL has rarely been out of the news during the year, for a variety of reasons. The courts provided, as Westinghouse Electric, able to meet large commitments to supply fuel for its reactors, pursued major uranium enrichment in 1968 that they planned to pool their progress with the counter-claim in a commercial venture to compete with the U.S. monopoly in enrichment. The result of this decision was revealed another, as publicly this autumn.

Justice Parker listed a variety of excuses. Britain should not take advantage of the best exporting technology that it has ever been used in the nuclear business, and Holland, at a cost of about £100m., and taken orders for enrichment worth about £1bn. The technology which the French had said was nothing more than a laboratory experiment, and for which Americans had said Britain lacked the production engineering skills for success, has been transformed into a new commercial process, now on-line.

The block approach to packaging is expected to be used in the more advanced tripartite technology, involving bigger machines than those at Capenhurst, which Urenco expects to start ordering next year for another tranche of enrichment capacity. Other key contributions to the tripartite technology will be bearing design and an understanding of rotor dynamics from the Dutch participants, manufacturing technology from German shareholders, and composite rotor materials and assembly methods from Britain.

Inspection

Urenco, however, has taken seriously the risks of proliferation and the need to provide assurances that neither the plants nor the technology would be used to produce highly enriched uranium for explosives. The new factories have been laid out carefully to facilitate inspection, and in fact are providing the International Atomic Energy Agency with its first experience of inspection of enrichment facilities. As they grow so it can, the company believes it could earn at least £550m, in foreign currency by constructing the 1,200-tonne plant. It will need such a plant eventually for the domestic nuclear programme.

The main arguments in its statement of case put to the Windscale tribunal were based on the contribution reprocessing makes towards energy conservation, by recovering uranium and plutonium—some 97 per cent of spent nuclear fuel—and its importance in isolating the radioactive waste for storage and disposal in accord with the best principles of waste management. Some of its arguments have recently been endorsed by a major international study published by the OECD last month, which found that the "throw-away" cycle for nuclear fuel would make waste disposal a less serious problem than arguments have recently been advanced by the assembly lines for clandestine enrichment activities. British Nuclear Fuels is assembling the blocks on-site at Capenhurst, and does the final machining of the highly critical rotating components. Motors, bearings, dampers, the extraction system, and all the other parts are all made in Britain.

Reprocessors, have pressed ahead and signed up contracts with the Japanese for deliveries of 1,600 tonnes of spent fuel during the 1980s. (BNFL hopes to sign contracts for the same quantity once it has the green light from the Government for THORP, although that is unlikely to come before next spring.) France's Cogema—BNFL an offshoot of the State nuclear research effort—exercised its right to share the Japanese contracts originally negotiated by BNFL.

Contracts

Altogether contracts for about 8,000 tonnes of spent fuel are under discussion between the two partners—the Germans are not expected to have a commercial reprocessing plant for another decade—and the assumption must be that all will go to France if the British Government rejects BNFL's plans for THORP.

United Reprocessor's terms call for advanced payments of about 40 per cent to finance the cost of reprocessing capacity. The French have described the cost-plus contracts as "a new form of collaboration between the electric utilities and the reprocessing industry, a collaboration such as it has already developed in other areas of the fuel cycle, such as uranium mining and enrichment."

Cogema's commercial reprocessing facility is at Cañ Hague, where the company is planning to build 800-tonne tranches—the first for imported fuel—the second for domestic use and then a third. In addition it is laying down temporary storage capacity for 4,000 tonnes of spent fuel by 1985.

Reactor

CONTINUED FROM PREVIOUS PAGE

clear power plants in operation by the year 2000. Many of these, as the Cabinet Office report pointed out, have links with the U.K., which make them attractive market prospects for British plants.

Lord Aldington, in making his inquiries of nuclear industry chiefs this summer, conceded himself that those prospects could be enhanced if Britain formally licensed the nuclear programme.

Britain is already selling some nuclear materials, components and services successfully for years, by companies approved working in nuclear standards. These include pumps made by Stone Plant and Hayward, Stirling's valves, more recently because of difficulties in gaining approval to proceed with new projects.

These established vendors are therefore competing hard for contracts in the developing world; while others such as Spain and Brazil are poised to enter this market in the 1980s. Another obstacle is the efforts of governments of the main nuclear supplier nations to tighten controls on nuclear exports—which Britain so far has enthusiastically supported. Many of the best prospective markets in the Third World have refused to sign the Non-Proliferation Treaty, and it is by no means certain that they will accept international inspection of their nuclear programmes, as the main nuclear supplier nations have agreed to stipulate.

Domestically, Britain also has a serious problem in terms of its ability to execute major construction projects of every kind—chemical, refinery, oil—

including nuclear projects. Completion dates for the three unfinished AGR stations have slipped back by about one year over the last year, the CEBG recently disclosed. All three will have taken at least ten years to complete, and nearer 15 in the case of Dungeness B.

At the heart of the problem is the poor industrial discipline at large construction sites involving a multiplicity of crafts. It raises the question whether Britain has the project management skills to spare for major overseas projects; whether export of reactor systems during the 1980s could woo away the best project managers and place Britain's own electricity requirements in jeopardy.

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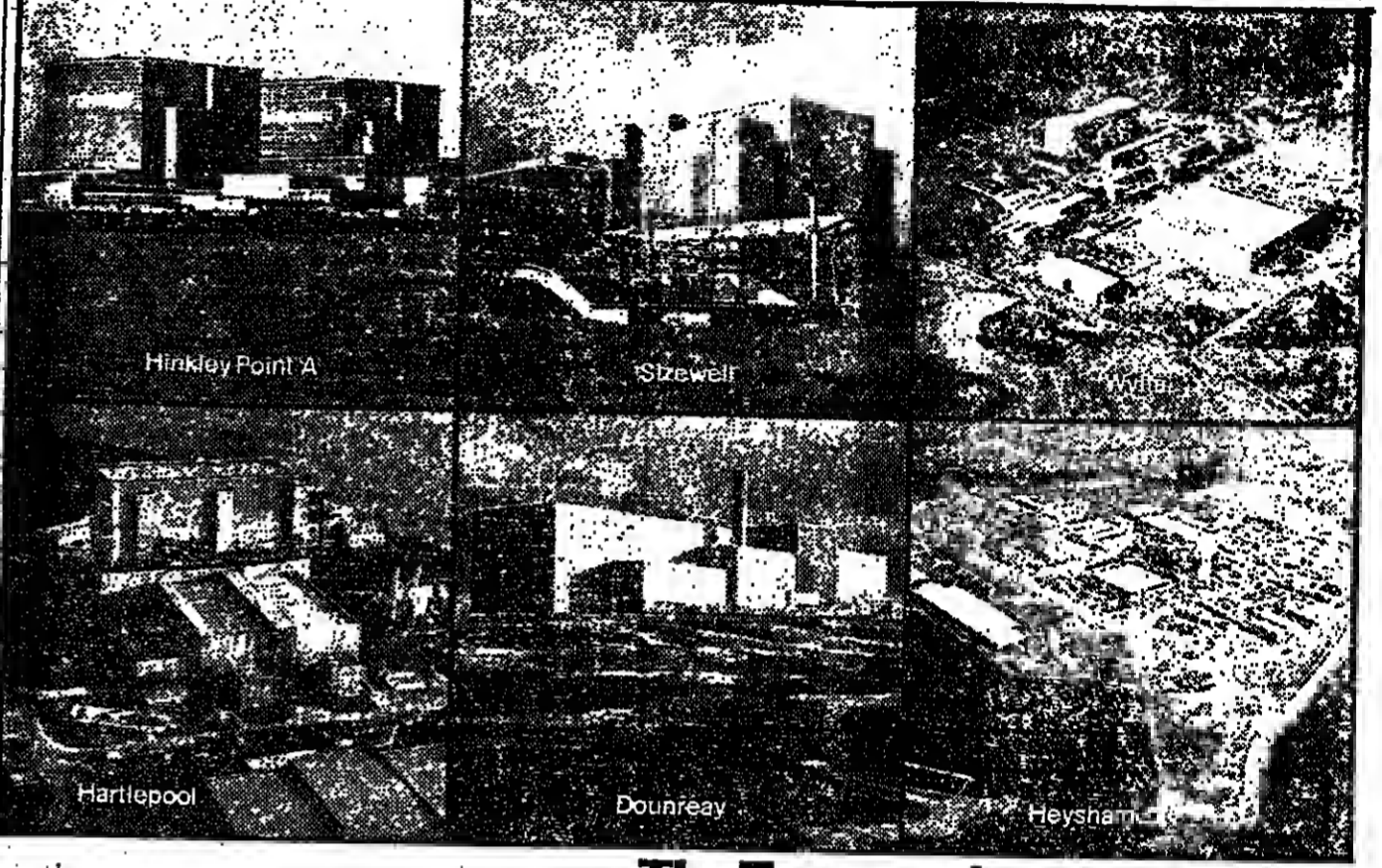
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The view from Washington

"YOUR JUDGE PARKER," said a senior official admiringly in Washington last month, "do you think we could hire him?" The Americans are deeply impressed by his handling of the Windscale inquiry, by his refusing to let British Nuclear Fuels try to blind the tribunal with science (or economics), and by the ineffable tolerance he has shown towards many objectors, even towards U.S. citizens who the U.S. Administration itself knows well as troublemakers. Mr. Justice Parker has opened their eyes to a new way of dealing with the opposition not only to nuclear expansion but to the provision of adequate energy supplies of any kind in the future—by giving the objectors every opportunity to muster the best case they can.

In April President Carter announced his Administration's energy policy, set out in a 28-page "detailed fact sheet." Nuclear power featured only from page 24. The intention was clear—to keep nuclear energy in the lowest possible key. Mr. Carter, who in 1974 when dedicating the 810MW Hatch nuclear power station in Georgia had spoken of "what I believe is a safe, predictable and very fruitful source of electric power" and of being "very proud to have this first plant coming to be in Georgia," had reversed his views in the interest of votes while on the campaign trail in 1976. But after four months of exposure in office to the harsh realities of energy supply and demand, as expounded by his energy adviser Dr. James Schlesinger, Mr. Carter's opinions had turned almost full circle.

The Carter energy policy endorsed the same three-pronged "cocoon" programme—coal, conservation and nuclear energy—for energy in-

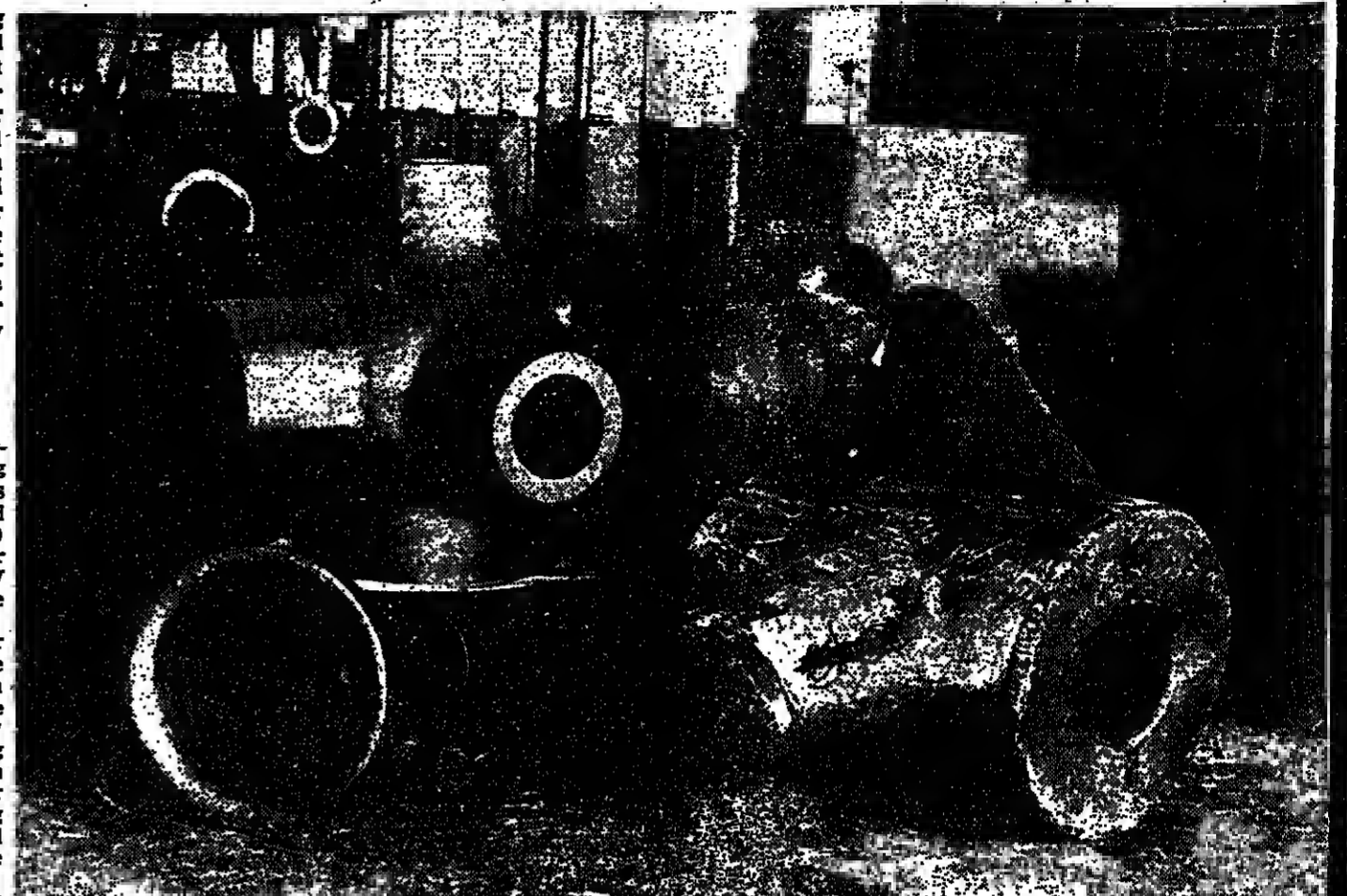
dependence that Britain among other European countries had also arrived at, although not formally declared. But the presentation was that nuclear electricity would merely "fill the gap" that remained when expanded coal production and vigorous efforts had done their best to fulfil U.S. demand. The gap was to be filled by the light water reactor, for a decade the principal target of the nuclear opponents but now formally blessed by the President.

Experts

It was left for energy experts to calculate just how big the gap would be. Their figures indicated that the U.S. would need somewhere between 200 and 600 additional nuclear plants, nominally 1,000 MW apiece, in operation before the year 2000.

Tacitly, however, Mr. Carter had already admitted that the gap could be big, by the concern he showed to reduce the time being taken to license new nuclear projects. Considering his position on the campaign trail, this was a brave move, for effectively he was telling nuclear critics that they had been making too much of the ruoming.

But the creeping paralysis that has seized the business of nuclear licensing will not be reversed overnight by Presidential decree. In the view of Dr. Joseph Hoedrie, the new chairman (since August) of the Nuclear Regulatory Commission, the problem divides into two distinct parts. In the short term he believes that he can save some time in licensing, perhaps six to eight months, by speeding procedures in-house. A fact that "has not escaped the keen observation of Congress," he says wryly, is that



Forged steel valve bodies for export, for U.S.-designed light water reactors, made by closed-die techniques at Cameron Iron Works in Scotland.

the system worked faster when there were fewer regulatory staff and far more applications. But the big gains Mr. Carter is looking for could come from the new Licensing Bill that the Administration hopes Congress will approve this month. It aims for unified action on licensing. In the longer term the hope is that most if not all the substantive issues about a

proposed nuclear site could be dealt with several years in advance of plans for the specific project. Another important feature will be acceptance of standardised plant design, with its implied curbs on "ratchet" designs that are constantly updated during construction when ever someone has a new idea about safety.

But Dr. Hendrie sees these as long-term gains from the new Bill, which might be realised only in 5 to 10 years and upwards. He also acknowledges how sensitive Congress can be about any threat of encroachment by Federal legislation into areas traditionally the responsibility of the individual State and local authorities. Another factor, the consequences of which no one can yet assess with assurance, is that the new Administration, in paying political dues, has introduced many new faces whose reputations are based on stopping rather than completing projects.

These appointments, high up on the President's own Council on Environment and Quality, at the Environmental Protection Agency, and at the Department of the Interior, are—as Dr. Schlesinger knows only too well—well placed to sabotage from within key parts of the energy programme for light water reactors. As a result, one of the toughest tasks in the new Department of Energy will be the handling of the research and development programme, formerly the main responsibility of the Energy Research and Development Administration.

As Assistant Secretary for Energy Technology, Mr. Robert D. Thorne will spend \$2.75bn. of the department's \$10.6bn. budget for 1978. His responsibilities range from a \$750m. budget for the fast breeder reactor and its fuel cycle to a \$262m. budget for solar energy (which, in Mr. Thorne's view, has in certain important respects been over-sold). Of the 380MW Clinch River demonstration fast breeder reactor which the President is anxious to kill but Congress is not, he says bluntly, that it was "the wrong reactor with the wrong design at the wrong time." The cash saved will go into the "back end" of the fuel cycle—waste management, storage of spent fuel, etc. But Mr. Thorne has no doubt that the concept of fast breeder reactors is one which the Department of Energy should pursue—and will continue to pursue on a scale several times greater than Britain. "I don't believe we know to-day what it should look like, and when (or if) it should penetrate the market." He thinks it will be another two years before his department will be ready to consider building a new fast breeder demonstration project. When it comes, the demonstration could be a liquid metal fast breeder ("a very sound and very safe concept") or a gas-cooled fast breeder ("it has some attractive features, although we're not yet sure about safety") or a Canada-Candu approach to breeding ("but the drawback is the cost of heavy water—even the Canadians agree").

The factor of over-riding importance, in the view of the present Administration, is whether—any of these options affords the greatest prospect for curbing the risks of proliferation of nuclear explosives. For that reason, a comparison of all nuclear fuel cycles from the standpoint of which seems to promise least risk of proliferation is one important part of the International Fuel Cycle Evaluation (INFCEP) Programme. INFCEP will re-examine years of progress in a new technology to see whether, under the pressures first to make nuclear weapons and later to achieve low-cost power, the nuclear industry might not have bypassed an option that is inherently more proliferation-proof. The terms of reference were agreed among the seven nations which attended the London summit in May, and the U.S. Government hopes to launch it with the support of at least 30 nations.

Shift
But objectives of INFCEP have undergone a subtle shift as the plans hardened, and became clearer that proliferation, far from being a neglected factor as the wide-eyed enthusiasts of the new U.S. Administration so fervently believed, has been a central unpublicised consideration throughout the entire 35 years. The technologies that had been bypassed, such as the uranium cycle, were no more proof against proliferation than those that had progressed to the commercial arena. The emphasis in the programme as launched will be less on disinterring overlooked technology than on devising institutional arrangements that would guarantee aspirants of civil nuclear power the technology and services they need from internationally supervised centres and stockpiles. The U.S. Government has made acutely aware this summer that the nation's credibility as an international nuclear supplier has been badly tarnished by several abrupt reversals of policy, and by apparently unbreeder demonstration project, compromising statements and threats of embargoes and other sanctions against customers who have rebelled against its unilateral actions.

Export markets and the proliferation risk

THE PROBLEM of nuclear proliferation—the risk that more and more nations will acquire nuclear explosives—would not disappear altogether if every nation were to sign the Non-Proliferation Treaty (NPT), but it would certainly reduce to much smaller dimensions. In fact, a remarkably large number—102 nations—are parties to the NPT, indicating a unanimity of view that can have few parallels in international politics. But about 30 are not, and of those perhaps a dozen are the cause of serious concern, since potentially they could have the wherewithal to make nuclear explosives.

Non-signatories cite a number of objections to the NPT, some of which are accepted by signatories as valid ones. The process of persuasion has proceeded patiently along two paths—to secure more signatures (a recent coup was Japan's) and to find supplementary safeguards for nations that still refuse to sign. The aim of such safeguards is to provide nations exporting nuclear technology, materials and know-how with watertight assurances that none of it will be channelled into explosives, and that if any is they will receive "timely warning of the miscreant's intentions."

From 1968 to 1974 the NPT fulfilled its primary task. Then India exploded what it called, emphatically, a "peaceful nuclear explosive." It was a serious setback, because India was not a party to the NPT and had obviously used technology and assistance provided in good faith by signatories. Moreover, other non-signatories

such as Brazil and Pakistan were openly shopping for technologies highly relevant to nuclear explosives.

Attempts to get the main nuclear exporting nations round the same table began in the mid-1960s, when the Russians refused to participate, and continued in the early 1970s, when the French held aloof. But the Indian explosion brought the risks into stark relief. Early in 1975 both the French and the Russians joined in the first meeting of the Nuclear Suppliers Group (NSG) of seven nations, called to discuss tighter controls on exports of "sensitive technologies"—namely, reprocessing, uranium enrichment and heavy water production, all potential routes to explosives.

Agreed

At the eighth meeting in London of the NSG last month, members—now expanded to 15—accepted the principle that they should consult and possibly impose sanctions on any nation found to be breaching international agreements not to develop nuclear explosives, whether or not it was party to the NPT. They also agreed that while a complaint about a possible breach of agreements by a customer-nation was being investigated, there would be an embargo by all members on all transfers of all nuclear technology, etc. to the suspect nation. They agreed furthermore, to abandon the secrecy that has surrounded their deliberations, by each one communicating with the director-general of the International Atomic Energy Agency, asking him to publish the group's guidelines.

But some members—Britain among them—would like to see agreement go further. They would like the group to agree to what is known as "full-scope" safeguards, namely the principle that before any transfer of sensitive technology the customer nation opened all of its nuclear facilities to international inspection. They would also like to see the group enlarged further, to include for example all the main uranium suppliers and also some of the leading customer nations. The latter could be an important gesture towards those nations—mostly, but not all, non-signatories of the NPT—who have accused the NSG of being a cartel in disguise. These nations, which see nuclear energy as the primary means of development, are deeply suspicious of what they see as the rich nations attempting to retain tight control—and perhaps to derive economic advantage thereby.

Most of the group members are sympathetic to such views. Several of them have left the U.S. Government in no doubt this summer about how they saw the new Administration's attempts to impose U.S. domestic policy upon their sovereign affairs. Dr. David Owen, Britain's Foreign Secretary, was the first to state such views when in May he said bluntly that Britain was not yet willing to accept the tough new proposals President Carter had put forward at the London Summit a few days before. As he put it, nationally an effective anti-proliferation policy "must go hand-in-hand with an effective energy strategy." Dr. Owen indicated that he believed the President's proposals were seriously incompatible with this count.

Mr. Carter wanted the rest of the nuclear world to follow the new U.S. policy of abandoning the current reprocessing and fast breeder reactor technologies, because they involve the separation of plutonium in forms that could be turned into explosives. The Administration seriously underestimated the scepticism with which its ideas would be received by nations which either saw themselves as ahead of the U.S. in the development of the technologies he wished to proscriber, or found little reason to accept U.S. assurances that it would guarantee their future energy security. As an American witness to a Congressional inquiry in mid-September, what U.S. anti-proliferation policy was really saying was "We don't trust you but we want you to trust us."

Dr. Sivard Eklund, in his opening address in the general conference of the IAEA in Vienna last month, warned that any attempt to prohibit the reprocessing of spent nuclear fuel would probably encourage the proliferation of reprocessing plants. He pointed to uranium enrichment—where the U.S. still has a monopoly of world capacity—as a "prime example of how a policy of denial may stimulate research and development activity in a sensitive area." The NPT was an infinitely better mechanism than a policy of denial, he said, for a world where there was no way of stopping the spread of nuclear technology. The important questions were not how ever to arrest nuclear development, but how to make best use of it, and how to apply effective safeguards against proliferation.

U.S. officials involved in these delicate anti-proliferation negotiations have been at great pains in recent weeks to establish that U.S. policy is much more flexible than late for nations to co-operate.

Dr. Nye ended his address with a plea. The course his Government was pursuing would require patience and close co-operation. Nuclear technology had indeed diffused in a point where it was "too late for any one nation to dictate." But it was not, he believed, too late for nations to co-operate.

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AUTHORISED UNIT TRUSTS

OFFSHORE AND OVERSEAS FUNDS

Main table listing various unit trusts and offshore funds with columns for fund names, managers, and performance metrics.

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- 1. Tax-free trading on commodity futures
2. The commodity futures market for the smaller investor

FINANCIAL TIMES STOCK INDICES

Table showing stock indices for various categories like Industrial, All-Share, and others.

HIGHS AND LOWS S.E. ACTIVITY

Table showing high and low stock prices and S.E. activity for various sectors.

FINANCIAL TIMES STOCK INDICES

Table showing stock indices for various categories like Industrial, All-Share, and others.

SINGAPORE

Table listing various stocks and their prices in Singapore.

Reform tax for women call

TAXATION is the major area of government policy where there has been no progress on equal rights for women since the passing of the Sex Discrimination Act nearly two years ago.

INSURANCE, PROPERTY, BONDS

Large table listing various insurance, property, and bond products with details on providers and terms.

CLIVE INVESTMENTS LIMITED
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INSURANCE BASE RATES
Property Growth 7%
Anon Assurance 34%

CORAL INDEX: 499-504

NOTES
Prices do not include 5 pence premium...

HOTELS-Continued

Table with columns: Hotel Name, Stock, Price, Div, Yield, etc. Includes entries like Dec. June, North (L.F.) Ho., etc.

INDUSTRIALS (Miscel.)

Large table listing various industrial stocks with columns for company name, stock price, dividends, and yields.

FT SHARE INFORMATION SERVICE

AMERICANS-Continued

Table listing American stocks such as J.A.O. Ben. N.Y. Corp. St., S.M. J. J. J., etc.

CANADIANS

Table listing Canadian stocks such as M.S.J.D. Bk. Montreal St., M.S.J.D. Bk. Nova Scotia St., etc.

BANKS AND HIRE PURCHASE

Table listing bank and hire purchase stocks such as J.A. J. J., J.A. J. J., etc.

BEERS, WINES AND SPIRITS

Table listing beer, wine, and spirit stocks such as Allied Brew., Allied Brew., etc.

AMERICANS

Table listing American stocks such as AMP. S. Com. Br., AMP. S. Com. Br., etc.

BUILDING INDUSTRY-Cont.

Table listing building industry stocks such as Balfour Beatty, Balfour Beatty, etc.

CHEMICALS, PLASTICS

Table listing chemical and plastic stocks such as ICI, ICI, etc.

CINEMAS, THEATRES AND TV

Table listing cinema, theatre, and TV stocks such as British Electric, British Electric, etc.

DRAPERY AND STORES

Table listing drapery and store stocks such as Debenhams, Debenhams, etc.

DRAPERY AND STORES-Cont.

Table listing drapery and store stocks such as Debenhams, Debenhams, etc.

ELECTRICAL AND RADIO

Table listing electrical and radio stocks such as GEC, GEC, etc.

ENGINEERING

Table listing engineering stocks such as BHP, BHP, etc.

ENGINEERING MACHINE TOOLS

Table listing engineering machine tool stocks such as BHP, BHP, etc.

ENGINEERING-Continued

Table listing engineering stocks such as BHP, BHP, etc.

FOOD, GROCERIES, ETC.

Table listing food and grocery stocks such as BHP, BHP, etc.

HOTELS AND CATERERS

Table listing hotel and caterer stocks such as BHP, BHP, etc.

Henry Boot Construction Limited advertisement with logo and contact info.

BRITISH FUNDS

Table listing British funds such as Short's (Lives up to Five Years), etc.

Five to Fifteen Years

Table listing funds with 5-15 year maturities.

Over Fifteen Years

Table listing funds with over 15 year maturities.

INTERNATIONAL BANK

Table listing international bank stocks.

CORPORATION LOANS

Table listing corporation loan stocks.

COMMONWEALTH & AFRICAN LOANS

Table listing commonwealth and African loan stocks.

FOREIGN BONDS & RAILS

Table listing foreign bonds and rail stocks.

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INDUSTRIALS—Continued

Table listing various industrial companies with columns for Stock, Price, Div, and Yld.

INSURANCE—Continued

Table listing insurance companies with columns for Stock, Price, Div, and Yld.

PROPERTY—Continued

Table listing property-related companies with columns for Stock, Price, Div, and Yld.

INV. TRUSTS—Continued

Table listing investment trusts with columns for Stock, Price, Div, and Yld.

FINANCE, LAND—Continued

Table listing finance and land-related companies with columns for Stock, Price, Div, and Yld.

INSURANCE

Table listing insurance companies.

PROPERTY

Table listing property-related companies.

PROPERTY

Table listing property-related companies.

PROPERTY

Table listing property-related companies.

PROPERTY

Table listing property-related companies.

MINES—Continued

Table listing mining companies with columns for Stock, Price, Div, and Yld.

MINES

Table listing mining companies.

PROPERTY

Table listing property-related companies.

PROPERTY

Table listing property-related companies.

PROPERTY

Table listing property-related companies.

PROPERTY

Table listing property-related companies.

PROPERTY

Table listing property-related companies.

MISCELLANEOUS

Table listing miscellaneous companies.

NOTES

Unless otherwise indicated, prices and dividends are in pence and denominations are 25p. Estimated prices and dividends are based on the latest available information and are subject to change.

TEAS

Table listing tea companies.

Sri Lanka

Table listing Sri Lanka companies.

Africa

Table listing African companies.

MINES

Table listing mining companies.

CENTRAL RAND

Table listing Central Rand companies.

EASTERN RAND

Table listing Eastern Rand companies.

FAR WEST RAND

Table listing Far West Rand companies.

O.F.S.

Table listing O.F.S. companies.

FINANCE

Table listing finance companies.

INDUSTRIALS

Table listing industrial companies.

INDUSTRIALS

Table listing industrial companies.

INDUSTRIALS

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Table listing industrial companies.

INDUSTRIALS

Table listing industrial companies.

INDUSTRIALS

Table listing industrial companies.

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Belgian State may rescue Fairey plant

BY DAVID BUCHAN

BRUSSELS, Oct. 16.

THE BELGIAN government has underwritten the future of Fairey's subsidiary and will take over the Gosselies plant if no private buyers can be found, Fairey executives said here.

Last week the U.K. Fairey group called in the Receiver, citing financial problems caused by the "insolvency" of its Belgian subsidiary which is under court-controlled management.

But it has had to intervene, if only to honour its assurance to General Dynamics, that the Gosselies sub-contract work (worth about £200m. over six years) on the NATO F-16 fighter will go ahead.

Mr. Tylee said: "The Government now has to ask itself whether it still wants two of its three main military aircraft contractors owned from outside."

Critical

Union pressure for nationalisation, high unemployment in the Gosselies area, and the need to keep a pool of skilled labour were among factors cited by Mr. Tylee making for a permanent State stake in the Belgian aircraft industry.

U.K. to resist raised EEC contributions

BY DAVID BUCHAN

BRUSSELS, Oct. 16.

TIGHTER INSTRUCTIONS for EEC negotiators in the forthcoming textile talks, and an avoidance of any sharp rise in the U.K.'s budget contribution to the Community's budget are likely to be the priority aims of British Ministers in the two days of EEC council talks that start in Luxembourg tomorrow.

A meeting of the Finance Ministers' council will be followed by a Joint Finance and Foreign Affairs Council in the afternoon, while Foreign Ministers meet on Tuesday.

Labour meeting to study Common Market policy

BY RICHARD EVANS, LOBBY EDITOR

THE JOINT meeting of the Cabinet and the Labour Party's National Executive Committee to decide on party policy towards the Common Market is likely to be held next week.

Talks tomorrow 'crucial for Leyland future'

BY TERRY DODSWORTH AND NICK GARNETT

MR. PAT LOWRY, personnel director of British Leyland, warned yesterday that the "future shape and size of the British motor industry" could be well decided at the crucial meeting of Leyland shop stewards in London tomorrow.

But since the toolsmakers' dispute officials have cooled to the idea of wholesale changes in organisation and management.

Support doubtful

"The consequences on the shape of Leyland Cars and on the future of those who rely on the company for a living could only be serious," he said.

Resisted

Mr. Terry Duffy, Midlands executive member of the TGWU, said any idea of restructuring Leyland would be resisted by his members.

SALT agreement near, says Vance

BY DAVID BELL

WASHINGTON, Oct. 16.

A NEW strategic arms agreement (SALT) may be completed "in the near future," Mr. Cyrus Vance, the U.S. Secretary of State, said today.

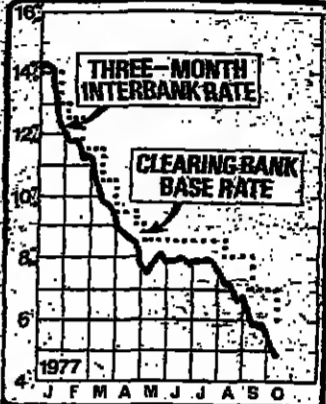
Smaller

In particular, Equity Capital would probably be willing to subscribe for shares placed with it at a price which was at a discount of less than 10 per cent. below the market value of the company's shares.

Mr. Vance, speaking on television, also said that the O.S. Administration continued to be optimistic about a new Geneva peace conference on the Middle East and was waiting for real negotiations to begin.

THE LEX COLUMN From here to the 1980s

Our old friend the weight of money argument is featured again in two forecasting exercises published to-day.



Money pressures

A closer inspection of the LBS forecasts reveals a less rosy picture, however.

Base rates

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Unbalanced

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Continued from Page 1

Booth warning to employers

ment has now, in fact, become the main issue for the strikers. There was also evidence, said Mr. Dromey, that many smaller companies, particularly in the service sector, were following Grunwick's footsteps on handling labour relations.

Union, said mass picketing of the Grunwick type tended to rebound on the trade union movement and, in this case, was a sledgehammer to crack a nut.

Table with columns for U.K. TODAY and HOLIDAY RESORTS, listing weather conditions for various locations.

